CENTOGENE N.V.

Dutch statutory board report and financial statements

for the fiscal year ended December 31, 2023

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1. INTRODUCTION

1.1. Preparation

The statutory board (bestuursverslag) report as referred to in Section 2:391 DCC is formed by chapters 1 to 11.

In this report ("Annual Report"), the terms "we", "us", "our" and "the Company" refer to Centogene N.V. and, where appropriate, its subsidiaries.

This report has been prepared by the Company's management board (the "management board") pursuant to Section 2:391 of the Dutch Civil Code ("DCC") and also contains (i) the Company's statutory annual accounts within the meaning of Section 2:361(1) DCC and (ii) to the extent applicable, the information to be added pursuant to Section 2:392 DCC. This Annual Report relates to the fiscal year ended December 31, 2023 and, unless explicitly stated otherwise, information presented in this Annual Report is as at December 31, 2023.

1.2. Forward-looking statements

This Annual Report contains statements that constitute forward-looking statements. All statements other than present and historical facts and conditions contained in this Annual Report, including statements regarding our future results of operations and financial position, business strategy, plans and our objectives for future operations, are forward-looking statements. When used in this Annual Report, the words “anticipate,” “believe,” “can,” “could,” “estimate,” “expect,” “intend,” “is designed to,” “may,” “might,” “plan,” “potential,” “predict,” “objective,” “should,” or the negative of these and similar expressions identify forward-looking statements.

Forward-looking statements are based on our management’s beliefs and assumptions and on information currently available to our management. Such statements are subject to risks and uncertainties, and actual results may differ materially from those expressed or implied in the forward-looking statements due to various factors, including, but not limited to, those identified under “2. Risk Factors” in this Annual Report. These risks and uncertainties include factors relating to:

- our ability to generate cash from operations and attract financing;
- failure to meet covenants in our debt agreements that could result in acceleration of our payment obligations, limit our operating and financial flexibility and in an event of default, result in losses to the assets securing our debt obligations;
- our strategic restructuring initiative and the related restructuring cost;
- our ability to effectively manage our future growth and to execute our business strategy;
- our ability to generate sufficient revenue from our relationships with our pharmaceutical partners and clients, and to otherwise maintain our current relationships, or enter into new relationships, with pharmaceutical partners and clients;
- economic, political or social conditions and the effects of these conditions on our pharmaceutical partners and diagnostics clients businesses and levels of business activity;
- the effects of pandemics, epidemics, disease outbreaks and other public health crises, such as the COVID 19 pandemic on our business and results of operations;
- our expectations for our products and solutions achieving commercial market acceptance, and our ability to keep pace with the rapidly evolving industry in which we operate;
- our assumptions regarding market size in the rare disease industry and our growth potential;
- our pharmaceutical partners and clients need for rare disease information products and solutions and any perceived advantage of our products over those of our competitors;

- our ability to manage our international expansion, including our exposure to new and complex business, regulatory, political, operational, financial, and economic risks, and numerous and conflicting legal and regulatory requirements;
- our continued reliance on our senior management team and other qualified personnel and our ability to retain such personnel;
- our ability to obtain, maintain, protect and enforce sufficient patent and other intellectual property protection for any products or solutions we develop and for our technology;
- the ongoing protection of our trade secrets, know how, and other confidential and proprietary information;
- our ability to remediate our material weaknesses in internal control over financial reporting;
- general economic, political, demographic and business conditions in North America, the Middle East, Europe and other regions in which we operate;
- changes in government and industry regulation and tax matters;
- other factors that may affect our financial condition, liquidity and results of operations;
- our ability to comply in the future with all of Nasdaq continued listing standards and rules governing the diversity of our board of directors; and
- our ability to regain compliance in the future with all of Nasdaq´s listing requirements.
- other risk factors discussed under "2. Risk Factors."

You should refer to the section of this Annual Report titled "2. Risk Factors" for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this Annual Report will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

1.3 Corporate Governance Statement

The information that must be included in this statement pursuant to Section 3 subsection 1 of the Decree on the Content of the Directors' Report (Besluit inhoud bestuursverslag) can be found in the section 7 (Corporate Governance) and Section 8 (Compensation) of the 2023 directors' report.

2. Risk Factors

2.1 Summary Risk Factors

In the course of conducting our business operations, we are exposed to a variety of risks, some of which are inherent in our industry and others of which are more specific to our own businesses. The discussion below addresses the material factors, of which we are currently aware, that could affect our businesses, results of operations and financial condition and make an investment in the Company speculative or risky.

The company has initiated a Corporate Risk Management exercise and with the company's emphasis on technology, the Risk Management activity is owned by the Chief Information Officer. The activities completed and presented at this time were (non-exhaustive):

- Implementation of Risk Management in IT;
- Presentation of Corporate Risk Management approach to Supervisory Board ("SVB");
- Initial company-wide risk assessment and calibration;
- On a more granular level, the applied methodology was aligned with common best practice using the following levers:
    - Impact: 1-Negligible, 2-Minor, 3-Moderate, 4-Critical, 5-Catastrophia
    - Likelihood: Less than 1:10,000 (very unlikely), 1-1,000 to 1:10,000 (unlikely), 1:100 to 1:1,000 (occasional), 1:10 to 1:100 (probable), above 1:10 (frequent)

This methodology is applied for the initial risk evaluation leading to the determination of expected "residual risk" after mitigation action.

The company has progressed in drafting a more elaborate risk charter for Enterprise Risk Management aiming to structure a concise and equally comprehensive activity. The draft lists the four key risks in each of the following:

- Macro Environment
- Legal & Regulations
- Financial
- Business Support/Plan
- HR
- Corporate Value
- Industry
- Market
- Business Continuity
- Compliance
- Customer Excellence
- Quality & Regulatory

In parallel, the company's Quality and Regulatory Affairs function has initiated a holistic risk management exercise with focus on the compliance risks impacting our core business. This function is being shaped and structured throughout 2022 and 2023.

The risk management framework is currently under development therefore not all required disclosures are included, such as Ethical and Social risks requirements.

The principal risks and uncertainties which the Company faces include the risks and uncertainties summarized in this chapter [2.1]. See chapter [2.2] of this report for additional detail and additional risks and uncertainties which the Company faces. Some of these risks include:

Factors Relating to Our Business and Strategy

- Our strategic restructuring initiative may not achieve intended benefits and the related restructuring cost could have a material adverse effect on our business and results of operations.
- We may fail to generate sufficient revenue from our relationships with our clients or pharmaceutical partners to achieve and maintain profitability.
- Many events beyond our control, including geopolitical events, may adversely affect our business.
- We may fail to maintain our current relationships with pharmaceutical companies or enter into new relationships on a similar scale.
- Difficulty in successfully identifying patients for our pharmaceutical partners due to relatively small patient populations for rare diseases.
- We may fail to generate sufficient volumes of data from our diagnostic tests for inclusion in our data repository.
- Volatile, negative or uncertain economic, political or social conditions and the effects of these conditions on our pharmaceutical partners' and diagnostics clients' businesses and levels of business activity.
- We derive a large proportion of our revenues and equipment from agreements with a limited number of pharmaceutical partners and suppliers, respectively.
- Restrictions or delays in the receipt of patient samples to our laboratories for diagnostic testing.
- Substantial product liability or professional liability claims that could exceed our resources.
- Challenges to patient consent validity could impede our rare disease information development efforts.
- Interruption of access or damage to our highly specialized laboratory facilities, storage facilities or equipment.
- Pandemics, epidemics, disease outbreaks and other public health crises, could materially adversely impact our business, financial condition, liquidity, and results of operations.
- Failure in our information technology systems.
- We rely on a limited number of suppliers, or, in some cases, a sole supplier, for some of our laboratory equipment and may not be able to find replacements or immediately transition to alternative suppliers.
- Inability to attract and retain new talent, including members of our senior management team.
- New and complex business, regulatory, political, operational, financial, and economic risks as a result of international business expansion.
- Unanticipated difficulties involved in the implementation of partnership agreements with our pharmaceutical partners.
- Failure to achieve or maintain sales of our products and solutions.
- Failure to manage our future growth effectively, which could make it difficult to execute our business strategy.
- Inability to successfully commercialize new products or solutions on a timely basis or at all.
- Failure to expand our direct sales and marketing force to adequately address our pharmaceutical partners' and clients' needs.
- The knowledge and interpretation-based solutions we provide to our pharmaceutical partners may not achieve significant commercial market acceptance.
- Failure to keep pace with the rapidly evolving industry in which we operate.
- We may fail to successfully respond to increasing demand for our products and solutions.
- Failure to obtain favorable pricing for our products and to meet our profitability expectations.
- Ethical, legal and social concerns related to the use of genomic information could reduce demand for our genetic rare disease knowledge and interpretation-based products and solutions.
- Our resource allocation decisions may lead us to focus on research and development programs that are not commercially viable, and as a result we may be unable to recover the costs incurred under these efforts.
- Failure to compete successfully with competitors, including new entrants in the market.

- If our pharmaceutical partners experience any of a number of possible unforeseen events in connection with their clinical trials, our ability to commercialize future solutions or improvements to existing solutions could be delayed or prevented.
- Our employees, principal investigators, consultants, and commercial partners may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements, insider trading, misappropriation of trade secrets and wrongful use or disclosure of confidential information.
- We may lose the support of key thought leaders and fail to establish our products and solutions as a standard of care for patients with rare and neurodegenerative diseases.
- Security breaches, loss of data, and other disruptions could compromise sensitive information related to our business or prevent us from accessing critical information and expose us to liability, which could adversely affect our business and our reputation.
- We are subject to significant foreign currency exchange controls in certain countries in which we operate.
- We may acquire assets or other businesses that could negatively affect our operating results, dilute our shareholders' ownership, or increase our debt.
- We may enter into joint ventures with third parties, which may subject us to various risks, including limited decision-making authority, reliance on our joint venture partners' financial condition and the risk of disputes with our joint venture partners, which could adversely affect us.
- Regulatory risks including as a result of conflicting requirements, regulatory changes in the way that the FDA and the European Union regulate laboratory developed tests, non-compliance with FDA and EMA regulatory requirements and with evolving European and other data privacy laws, violations of worldwide anti bribery laws, and our inability to obtain timely regulatory approvals or adhere to regulations regarding our products and solutions.
- We may fail to achieve coverage or adequate reimbursement for our products and solutions by commercial third-party payors or government payors.
- Inspections, reviews, audits and investigations under federal and state government programs and contracts and health insurance providers regarding our billing practices.
- We may fail to successfully execute our contractual obligations associated with the establishment of our Joint Venture Agreement "(as defined in section 3. Information on the Company)".
- Being subject to significant foreign currency exchange controls, we may incur financial loss as the milestone related payments stipulated in our Joint Venture agreement are denominated in Saudi Riyal.

Intellectual Property Risks Related to Our Business

- Inability to obtain and maintain patent and other intellectual property protection for any products or solutions we develop and for our technology, allowing our competitors to develop and commercialize products and solutions similar or identical to ours.
- Additional intellectual property risks, including our inability to protect the confidentiality of our trade secrets, know how, and other confidential and proprietary information, the unenforceability of our patents and intellectual property rights, third party claims of intellectual property infringement or commercial rights to inventions we develop, non-compliance with patent agency requirement and dependence on licenses granted to us by others.

Risks Relating to Our Financial Condition and Capital Requirements

- We have a history of losses, and we may incur losses in the future.
- We will require additional funding, which may not be available to us in the desired amount, at the desired time or on acceptable terms, or at all.
- Failure to obtain additional capital to fund, develop and expand our operations.
- We may fail to meet covenants in our debt agreements, which could result in acceleration of our payment obligations under our debt agreements, limit our operating and financial flexibility and in an event of default, result in losses to the assets securing our debt obligations.
- Increasing our financial leverage could affect our operations, profitability, and ability to raise additional capital.
- We may be required to refund grants and subsidies and may fail to meet covenants under loan facilities.
- Our results of operations could be materially adversely affected by fluctuations in foreign currency exchange rates.
- We have identified three material weaknesses in our internal control over financial reporting and may identify additional material weaknesses in the future that may cause us to fail to meet our reporting obligations or result in material misstatements of our financial statements. If we fail to remediate our material weaknesses or establish and maintain an effective system of internal control over financial reporting, we may not be able to report our financial results accurately

or to prevent fraud, and such failure could cause investors to lose confidence in our reported financial and other public information and have a negative effect on the trading price of our common shares.

Certain Factors Relating to Our Common Shares

- Risks relating to our common shares, including fluctuations in our share price, risk of dilution upon future issuances, multi-jurisdictional tax consequences, impacts of our Dutch public company status (including differing shareholder rights), risks resulting from our emerging growth company and foreign private issuer status, our non-payment of dividends and our broad discretion in the use of our cash on hand.
- We may in the future not comply with all of Nasdaq's continued listing standards and our common shares could be delisted.
- Failure to comply with Nasdaq's rules governing the diversity of our board of directors.
- Although not free from doubt, we do not believe that we were a "passive foreign investment company," or a PFIC, for U.S. federal income tax purposes for 2023, there is a significant risk that we may be a PFIC for 2023 or one or more future taxable years. If we are a PFIC for any taxable year, U.S. shareholders may be subject to adverse U.S. federal income tax consequences.

The company does not have an effective risk management and control systems in place. The management board is responsible for identifying and managing the risks associated with the company's strategy and activities.

2.2 Risk factors

Additional factors discussed below could affect our business, prospects, financial condition and results of operations. You should carefully consider the following risks and uncertainties and all of the other information in this Annual Report before making any investment decision. Our business, financial condition or results of operations could be materially and adversely affected if any of these risks occurs, and as a result, the market price of our common shares could decline and you could lose all or part of your investment. The risks described below are those that we currently believe may materially affect us. We may face additional risks and uncertainties not currently known to us or that we currently deem to be immaterial.

Factors Relating to Our Business and Strategy

Our strategic restructuring initiative may not achieve intended benefits and the related restructuring cost could have a material adverse effect on our business and results of operations.

During 2023, the Group has embarked upon a company-wide transformation that is already reflecting positive progression of revenues. Concurrently, we are continuing to reflect significant reductions in our general expenses aiming to extend our cash runway. This transformation is accentuated with further savings while boosting the selling resources dedicated to our Pharmaceutical segment. We are pursuing a number of additional restructuring initiatives that could extend our cash runway until our operating cash flows reach break-even.

The process to undertake these restructuring initiatives could take more time and be more costly than anticipated, and we may not be able to obtain the anticipated operational improvements within the contemplated timing or at all. The restructuring initiatives could also place substantial demands on our management, which could lead to the diversion of management's attention from other business priorities. Further, the restructuring may yield unintended consequences such as attrition beyond our targeted workforce reduction. The Company's success is dependent on the skills of our key personnel. Our restructuring plan involving workforce reduction may lead to an unintended loss of experienced employees or know-how. The loss of any member of our key personnel and actual or threatened work slowdowns or stoppages could lead to operational delays or cost increases. In addition, if we reduce or eliminate some or all of our research and development programs, this could cause significant delays in our preclinical, clinical and regulatory efforts, which could adversely affect our business prospects. If these incidents occur or if we are unable to attract, retain and maintain productive relations with our employees and key professionals, we might fail to deliver under existing commitments to third parties, which could harm our business and negatively affect our operating results and financial condition.

We may fail to generate sufficient revenue from our relationships with our clients or pharmaceutical partners to achieve and maintain profitability.

We believe our commercial success is dependent upon our ability to successfully market and sell our products and solutions to clients and pharmaceutical partners, to continue to sell our suite of diagnostic tests, to continue to expand our current relationships and to develop new relationships with pharmaceutical partners. The demand for our existing services may decrease or may not continue at historical rates for several reasons, including, among others, the development by competitors of new products or solutions that we are not able to commercialize, and increased competition from companies that offer similar products and solutions. In addition to reducing our revenue, if our pharmaceutical partners or clients decide to decrease or discontinue their partnerships or relationships with us, and their use of our knowledge and interpretation-based solutions, this may reduce our access to research and patient data that facilitates the incorporation of new information about rare or neurodegenerative diseases into the CENTOGENE Biodatabank. Our business model and strategy depend on the continued input of new data into our repository, and any such reduction in access to research and patient data could affect our ability to offer the same quality and scope of solutions to our pharmaceutical partners and other clients, which could adversely affect our business, prospects, financial condition, and results of operations. We are currently not profitable. Even if we succeed in increasing adoption of our existing solutions by pharmaceutical partners or tests by our clients or pharmaceutical partners, we may fail to generate sufficient revenue to achieve and maintain profitability.

Many events beyond our control, including geopolitical events, may adversely affect our business.

Many events beyond our control can adversely affect the healthcare industry, with a corresponding negative impact on our business and results of operations. Our operations and those of our third-party suppliers and collaborators could be subject to power shortages, telecommunications failures, water shortages, floods, hurricanes, earthquakes or other extreme weather conditions, medical epidemics, labor disputes, war, or other business interruptions. Although we have limited business interruption insurance policies in place, any interruption could come with high costs for us, as salaries and loan payments would usually continue. Moreover, any interruption could seriously harm our ability to timely proceed with our diagnostics, pharmaceutical collaborations, and research activities.

For example, the ongoing conflict between Russia and Ukraine, and the Middle East conflict have significantly disrupted supply chains and international trade. Following Russia's invasion of Ukraine in February 2022, and the Middle East conflict started in October 2023, the United States, the United Kingdom, the European Union and other countries and supra-national entities have imposed comprehensive economic sanctions to Russia and Syria. The effects of the ongoing conflicts and global economy remains uncertain. However, they have resulted in significant volatility in financial markets, as well as an increase in energy and commodity prices globally.

While our business and operations are currently not significantly impacted, it is not possible to predict the broader or longer-term consequences of the conflicts. If the armed conflicts were to spread to other countries in Europe, we may incur significant costs associated with assisting our employees with relocating to neighboring countries or providing other forms of aid. We may also lose clients or experience other disruptions of our business activities in the impacted regions.

Other consequences of the conflicts could include further sanctions, embargoes, regional instability, geopolitical shifts and adverse effects on macroeconomic conditions, security conditions, currency exchange rates and financial markets. Such geopolitical instability and uncertainty could have a negative impact on our ability to conduct ongoing and future Diagnostics activities, Pharmaceutical collaborations, and research programs in certain regions. This could be due to trade restrictions, embargoes and export control law restrictions, and logistics restrictions, which could increase the costs, risks and adverse impacts from supply chain and logistics challenges. There can be no assurance that the Russia-Ukraine conflict, including any resulting sanctions, export controls or other restrictive actions, will not have a material adverse impact on our future operations and results.

In addition, increases in inflation may have an adverse effect on our business. Current and future inflationary effects may be driven by, among other things, supply chain disruptions and governmental stimulus or fiscal policies as well as the ongoing military conflicts. Continuing increases in inflation could impact the overall demand for our products, our costs for labor, material and services, and the margins we are able to realize on our products and services, all of which could have an adverse impact on our business, financial position, results of operations and cash flows.

We may fail to maintain our current relationships with pharmaceutical companies, or enter into new relationships on a similar scale.

Our success in the future depends in part on our ability to maintain relationships and to enter into new relationships with pharmaceutical partners. Partnerships are complex and time-consuming to negotiate and document. Whether we reach a definitive agreement for a partnership will depend on a number of factors, including, among other things, upon our partners' assessment of our industry knowledge, data repository, logistical resources and expertise, the terms and conditions of the proposed partnership, and our partners' evaluation of the potential value added from our rare and neurodegenerative disease knowledge and insights. If we are unable to do so, we may have to curtail our research on a particular rare or neurodegenerative disease or increase our expenditures and undertake research and development activities at our own expense. Further, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future partners.

Our ability to maintain our current relationships with our pharmaceutical partners, or enter into new relationships, can be difficult due to several factors, including that:

- our products and solutions are focused towards facilitating the development of rare disease treatments which limits our market to pharmaceutical partners active in the rare and neurodegenerative disease space;
- orphan drug development is complex, expensive and time-consuming due to limited identified patient populations and limited industry knowledge of rare diseases;
- our pharmaceutical partners may decide to decrease or discontinue their use of our rare and neurodegenerative disease information platform due to circumstances outside of our control, including changes in their research and development plans, whether they can obtain positive data or regulatory approval in clinical trials or successfully commercialize a treatment, changes in the regulatory environment, or utilization of internal testing resources or genetic or other tests performed by other parties, among others;
- internal and external constraints may be placed on potential pharmaceutical partners that can limit the number and type of relationships with companies like us they can consider and consummate; and
- our pharmaceutical partners may be dissatisfied with our products or solutions or that we may fail to deliver expected benefits from our products or solutions.

If we fail to maintain our current relationships with our pharmaceutical partners, or enter into new partnerships, our business could suffer.

Because the identified patient populations for rare diseases are relatively small, it may be difficult to successfully identify patients for our pharmaceutical partners.

Our inability to identify a sufficient number of patients for our partners' clinical trials could result in significant delays and could require our partners to abandon one or more clinical trials altogether. Enrollment delays in our partners' clinical trials may result in increased development costs for our partners' drug candidates, which would cause the value of the solutions which we offer to our pharmaceutical partners to decline. If we are unable to identify patients with a specified driver of disease or applicable genomic alteration, this could compromise our ability to add value to our partners' clinical trials by accelerating clinical development and regulatory timelines. In addition, our projections of both the number of people who have these diseases, as well as the subset of people with these diseases who have the potential to benefit from treatment with our partners' existing treatments or drug candidates, are based on our internal estimates derived from data in the CENTOGENE Biodatabank. These estimates may prove to be incorrect, and new studies may reduce the estimated incidence or prevalence of these diseases. The number of patients in the United States, European Union and elsewhere may turn out to be lower than expected, may not be otherwise amenable to treatment with our partners' drug candidates or may be difficult to identify and access, all of which would adversely affect our business, prospects and ability to achieve or sustain profitability.

We may fail to generate sufficient volumes of data from our diagnostic tests for inclusion in the CENTOGENE Biodatabank.

Our business model assumes that we will be able to continue to generate significant diagnostic test volume to maintain the generation of data that feeds into the CENTOGENE Biodatabank, which is necessary for the development of new products and

solutions for our pharmaceutical partners and clients. We may not succeed in continuing to drive clinical adoption of our tests to achieve sufficient volumes. Inasmuch as detailed genetic or other data from our tests have only recently become available at relatively affordable prices, the pace and degree of clinical acceptance of the utility of such testing is uncertain. Specifically, it is uncertain how much genetic or other data will be accepted as necessary or useful, as well as how detailed that data should be, particularly since medical practitioners may have become accustomed to genetic or other testing that is specific to one or a few genes. To generate demand for our tests, we will need to continue to make our diagnostics clients, as well as physicians and key opinion leaders, aware of the benefits of our tests, including the price, the breadth of our testing options, and the benefits of having additional genetic or other data available from which to make treatment decisions. In addition, physicians in other areas of medicine may not adopt genetic or other testing for certain rare diseases as readily as it has been adopted for some more well-known rare diseases and our efforts to sell our tests to physicians outside of a set number of rare diseases may not be successful. A lack of or delay in increased clinical acceptance of our diagnostic tests would negatively impact sales and market acceptance of our tests and limit our ability to expand on the scope and quality of knowledge and interpretation-based solutions offered to our pharmaceutical partners, which could in turn impact our revenue growth and potential profitability.

In addition, genetic or other testing is still relatively expensive, and many potential pharmaceutical partners and clients may be sensitive to pricing concerns. Potential pharmaceutical partners or clients may not adopt our tests if adequate reimbursement is unavailable, or if we are not able to maintain low prices in the future relative to our competitors. If we are not able to generate demand for our tests at sufficient volumes, or if it takes significantly more time to generate this demand than we anticipate, our business, prospects, financial condition, and results of operations could be materially harmed.

We may be adversely affected by volatile, negative or uncertain economic, political or social conditions and the effects of these conditions on our pharmaceutical partners' and diagnostics clients' businesses and levels of business activity.

Global economic conditions affect our pharmaceutical partners' and diagnostic clients' businesses and the markets they serve, and volatile, negative or uncertain economic conditions may have an adverse effect on our revenue growth and profitability. Volatile, negative or uncertain economic conditions in our significant markets, in particular in our North America, Middle East or European regions, where we generated 42.7% and 15.9%, respectively, of our total revenues for the year ended December 31, 2023, could undermine business confidence, both in those markets and other markets, and cause our pharmaceutical partners or clients to reduce or defer their spending on new technologies or initiatives or terminate existing contracts, which would negatively affect our business. Growth in the markets we serve could be at a slow rate, or could stagnate, for an extended period of time. Differing economic conditions and patterns of economic growth and contraction in the geographical regions in which we operate and the industries we serve may affect demand for our products and solutions. Weakening in these markets as a result of high government deficits, credit downgrades or otherwise could have a material adverse effect on our results of operations. Ongoing economic volatility and uncertainty affects our business in a number of other ways, including making it more difficult to accurately forecast partner demand beyond the short term and effectively build our revenue and resource plans, particularly given the iterative nature of the negotiation of new contracts with our pharmaceutical partners. This could result, for example, in us not having the level of appropriate personnel where they are needed and could have a significant negative impact on our results of operations.

In addition, global capital markets have continued to display increased volatility in response to global events, including the Russian invasion of Ukraine as well as the hostilities in the Middle East. Future crises may be precipitated by any number of causes, including natural disasters, epidemics, geopolitical instability and war, changes to energy prices or sovereign defaults. Any sudden or rapid destabilization of global economic conditions could negatively impact our ability to obtain new equity or debt financing or make other suitable arrangements to finance our operations. If increased levels of volatility continue or in the event of a rapid destabilization of global economic conditions, including as a result of an escalation of the mentioned conflicts, it may result in a material adverse effect on the Company and the trading price of the Company's common shares could be adversely affected.

Furthermore, increases in inflation may have an adverse effect on our business. Current and future inflationary effects may be driven by, among other things, supply chain disruptions and governmental stimulus or fiscal policies as well as the ongoing military conflict between Russia and Ukraine as well as possible future escalation in the Middle East crisis. Continuing increases in inflation could impact the overall demand for our products, our costs for labor, material and services, and the margins we are able to realize on our products, all of which could have an adverse impact on our business, financial position, results of operations and cash flows.

Moreover, acts of terrorist violence, political unrest, armed regional and international hostilities and responses to these hostilities, natural disasters, global health risks or pandemics or the threat of or perceived potential for these events could have a negative impact on us. These events could adversely affect our pharmaceutical partners' levels of business activity and precipitate sudden significant changes in regional and global economic conditions and cycles. These events also pose significant risks to our

people and to physical facilities and operations around the world, whether the facilities are ours or those of our distributors, pharmaceutical partners or physicians that utilize our diagnostic testing services. By disrupting communications and travel and increasing the difficulty of obtaining and retaining highly skilled and qualified personnel, these events could make it difficult or impossible for us to deliver products and solutions to our clients and pharmaceutical partners. Extended disruptions of electricity, other public utilities or network services at our facilities, as well as system failures at, or security breaches in, our facilities or systems, could also adversely affect our ability to serve our clients and pharmaceutical partners. We might be unable to protect our people, facilities and systems against all such occurrences. We generally do not have insurance for losses and interruptions caused by terrorist attacks, conflicts and wars. If these disruptions prevent us from effectively serving our clients and pharmaceutical partners, our results of operations could be adversely affected.

We derive a large proportion of our revenues from agreements with a limited number of pharmaceutical partners and clients.

We have historically earned a large proportion of our revenue from a limited number of pharmaceutical partners and diagnostic testing clients. In the years ended December 31, 2023 and 2022, our top five pharmaceutical partners, in the aggregate, accounted for 26.7% and 29.8% of our revenues, respectively. The loss of, or material reduction in, revenues from any one of our major pharmaceutical partners or clients could materially reduce our total revenues, harm our reputation in the industry and/or reduce our ability to accurately predict our revenue, net income and cash flow. The loss of, or material reduction, in revenue from any one of our major pharmaceutical partners or clients could also adversely affect our gross profit and utilization as we seek to redeploy resources previously dedicated to that partner. We cannot assure you that revenue from our major pharmaceutical partners or clients will not be significantly reduced in the future. We also may not be able to maintain our relationships with our major pharmaceutical partners or clients on existing or on continued favorable terms and our major pharmaceutical partners or clients may not renew their agreements with us, in which case our business, financial condition and results of operations would be adversely affected.

In particular, during the year ended December 31, 2023, our collaboration with Takeda Pharmaceutical Company Limited, represented 12.6% of our total revenues (2022: 15.5%). We extended our collaboration with Takeda in 2024. The revenue attributable to Takeda may fluctuate in the future, which could have an adverse effect on our financial condition and results of operations. In addition, changes in the terms of our agreements with Takeda, or a modification or termination of our relationship with Takeda, could result in delays in the receipt of revenue by us, or a temporary or permanent loss of revenue to us. In addition, certain pharmaceutical companies, including those with which we currently have agreements, may choose not to do business with us or may seek out other partners for genetic rare disease information due to our strategic collaboration with Takeda, particularly if they are actual or potential competitors with Takeda. If we are unable to continue to grow our business with other pharmaceutical companies, our business and results of operations would be adversely affected.

Our client concentration may also subject us to perceived or actual leverage that our pharmaceutical partners or clients may have, given their relative size and importance to us. If our pharmaceutical partners or clients seek to negotiate their agreements on terms less favorable to us and we accept such unfavorable terms, this may have a material adverse effect on our business, financial condition and results of operations. Accordingly, unless and until we diversify and expand our client base, our future success will significantly depend upon the timing and volume of business from our largest pharmaceutical partners and clients and the financial and operational success of these pharmaceutical partners and clients.

We may face restrictions or delays in the receipt of patient samples to our laboratory for diagnostic testing.

Our business depends on our ability to receive samples quickly and reliably from physicians. Our proprietary, CE-Marked dried blood spot (DBS) collection kit, CentoCard®, is typically sent from locations worldwide to our laboratory in Rostock, Germany. Disruptions in delivery, whether due to factors beyond our control such as natural disasters, pandemics, terrorist threats, political instability, wars, governmental policies, failures by physicians to properly label or package the samples, failure by postage services, labor disruptions, bad weather or other factors could adversely affect the receipt by us of samples or specimen integrity and could impact our ability to process samples in a timely manner and to provide our services to our clients and pharmaceutical partners. There is a general trend in certain countries, for example in China, Saudi Arabia and certain countries in South America, where policies have been introduced or are under consideration that restrict the processing of genetic or other testing outside the country in which the patient is located. This could disrupt the transportation of samples to our testing from such countries and could adversely impact our current business operations or prevent us from expanding into certain new regions.

In addition, the majority of our samples are delivered to us via regular postal services worldwide. If such services are disrupted, or if we are unable to continue to obtain expedited delivery services or specialized delivery services for certain products, such as our prenatal algorithmic test, on commercially reasonable terms, our operating results may be adversely affected.

We may become subject to substantial product liability or professional liability claims that could exceed our resources.

The marketing, sale and use of our products and solutions could lead to the filing of product liability claims if someone were to allege that our products and solutions identified inaccurate or incomplete information regarding the diagnostic information of the disease indication analyzed, reported inaccurate or incomplete information concerning the available treatments for a certain type of rare or neurodegenerative disease or otherwise failed to perform as designed. For example, we have been subject to a claim from a client that our prenatal diagnostic test conducted at their request failed to identify a specific mutation present in a patient. We may also be subject to liability for errors in, a misunderstanding of, or inappropriate reliance upon, the information we provide in the ordinary course of our business activities. A product liability or professional liability claim could result in substantial damages and be costly and time-consuming for us to defend.

Our service and professional liability insurance may not fully protect us from the financial impact of defending against product liability or professional liability claims. Any product liability or professional liability claim brought against us, with or without merit, could increase our insurance rates or prevent us from securing insurance coverage in the future. Additionally, any product liability lawsuit could damage our reputation or cause current clients or pharmaceutical partners to terminate existing agreements and potential clients or pharmaceutical partners to seek other partners, any of which could impact our results of operations.

If the validity of a consent from a patient was challenged, we could be forced to stop using certain data resources, which would impede our rare and neurodegenerative disease information development efforts.

We provide diagnostic testing services to patients of our pharmaceutical partners and diagnostics clients worldwide. We also provide products and solutions, including biomarker development and testing, to our pharmaceutical partners. Such products and solutions involve the aggregation of data obtained from patients in our existing data repository and data obtained from new tests conducted both on patients whose samples remain in our biobank or new patients from whom we collect samples.

To a large extent, we also rely upon our pharmaceutical partners, our clients and, in some cases, third-party laboratories to collect the subjects' informed consent and comply with applicable local laws and international regulations. Although we maintain policies and procedures designed to monitor the collection of consent by both us and such third parties, we or third parties may not obtain the required consent in a timely manner, or at all. In addition, consent that we have obtained or will obtain may not meet the existing or future standards required by relevant governmental authorities.

The collection of data and samples in many different countries results in complex legal questions regarding the adequacy of consent and the status of genetic material under many different legal systems. In some jurisdictions, samples that contain a person's DNA might irrevocably qualify as personal data, as in theory such samples can never be completely anonymized. Legitimate interests of the donor might cause a "revival" of his or her personal rights in the future and limit our rights of utilization. The subject's consent obtained in any particular country could be withdrawn or challenged in the future, and those consents could prove invalid, unlawful, or otherwise inadequate for our purposes. Furthermore, we may face disputes with patients should their data be used in a manner which they did not expect or if the consent was recorded incorrectly or obtained fraudulently. Any findings against us, or our pharmaceutical partners, clients, or distributors, could deny us access to or force us to stop using certain of our clinical data or samples, which would impede our genetic or other information solution development efforts. We could become involved in legal challenges, which could result in substantial costs and be a distraction to management and other employees. Such claims could materially harm our business, prospects, financial condition, and result of operations.

If access to our highly specialized laboratory facilities, storage facilities or equipment is interrupted or damaged, our business could be negatively impacted.

Our diagnostic testing products and pharmaceutical solutions are rendered at our laboratory facilities. We currently run most of our core diagnostic testing at our laboratory in Rostock, Germany. If our laboratory becomes inoperable or some or all of our key equipment ceases to function even for a short period of time, we may be unable to perform our genetic or other tests or develop solutions in a timely manner or at all, which may result in the loss of clients and pharmaceutical partners or harm to our reputation, and we may be unable to regain those clients and pharmaceutical partners or repair our reputation in the future. Our facilities and equipment could be harmed or rendered inoperable by natural or man-made disasters, including war, fire, earthquake, flood, power loss, communications or internet failure or interruption, or terrorism, which may render it difficult or impossible for us to operate our information platforms or equipment for some period of time.

In particular, the biomaterials that are stored in our biobank are located in our Rostock facility. Should the biomaterials that we store there be damaged or destroyed, we would lose part or all our existing biomaterials and as a result we would not be able to retest this material for future research and development uses.

Furthermore, our facilities and the equipment we use to perform our research and development work could be unavailable or costly and time-consuming to repair or replace. It would be difficult, time-consuming, and expensive to rebuild any of our facilities or license or transfer our proprietary technology to a third party, particularly considering the licensure and accreditation requirements and specific equipment needed for laboratories like ours. Even in the unlikely event we are able to find a third party with such qualifications to enable us to perform our genetic or other tests or develop our solutions, we may be unable to negotiate commercially reasonable terms with such third parties. Any interruption of our laboratory operations could harm relationships with our clients and pharmaceutical partners or regulatory authorities, which could adversely affect our ability to generate revenue or maintain compliance with regulatory standards.

While we carry insurance for damage to our property and laboratory and the disruption of our business, such insurance may not cover all of the risks associated with damage to our property or laboratory or disruption to our business, may not provide coverage in amounts sufficient to cover our potential losses, may be challenged by insurers underwriting the coverage, and may not continue to be available to us on acceptable terms, if at all.

Pandemics, epidemics, disease outbreaks and other public health crises, such as the COVID-19 pandemic, have disrupted our business and operations, and future outbreaks or reemergence of the COVID-19 pandemic could materially adversely impact our business, financial condition, liquidity and results of operations.

Pandemics, epidemics or disease outbreaks either locally or globally, including the COVID-19 pandemic, have disrupted, and may in the future disrupt, our business, which could materially affect our results of operations, financial condition, liquidity and future expectations. The COVID-19 pandemic adversely affected businesses, economies and financial markets worldwide, placed constraints on the operations of businesses, decreased consumer mobility and activity, and caused significant economic volatility in capital markets. Any such events in the future, including a reemergence of COVID-19, may adversely impact our global operations, particularly as it relates to the United States (from where a significant proportion of our sequencing products are sourced) as well other countries in which we operate and from where we receive tests, may result in the loss of our significant client relationships and result in significant volatility of the trading price of our common shares. We may also be subject to enhanced legal risks, including potential litigation related to any future pandemics. Any new pandemic or other public health crisis, or the reemergence of the COVID-19 pandemic, could have a material impact on our business, financial condition and results of operations going forward.

To the extent any pandemics, epidemics, disease outbreaks and other public health crisis adversely affects our business and financial results, it may also have the effect of heightening many of the other risks described under "—We may face restrictions or delays in the receipt of patient samples to our laboratories for diagnostic testing" and "—We may be adversely affected by volatile, negative or uncertain economic, political or social conditions and the effects of these conditions on our pharmaceutical partners' and diagnostics clients' businesses and levels of business activity."

We depend upon our information technology systems, and any failure of these systems could harm our business.

In the normal course of our business, we depend on information technology and telecommunications systems for significant elements of our operations, including the CENTOGENE Biodatabank, our CentoPortal® client-facing platform, our laboratory information management system, our third-party datacenter solutions, our broadband connections and our client relationship management system. We have installed several enterprise software systems that affect a broad range of business processes and functional areas, including, for example, systems handling human resources, financial controls and reporting, contract management and other infrastructure operations. These information technology systems support a variety of functions, including laboratory operations, test validation, sample tracking, quality control, customer service support, billing and reimbursement, research and development activities, scientific and medical curation, and general administrative activities. In addition, our system is backed up by two offsite data centers that offer a disaster recovery system for our database in separate locations. Any technical problems that may arise in connection with third-party data center hosting facilities could result in interruptions in our service.

Despite the security measures we have in place and any additional measures we may implement in the future to safeguard our systems and to mitigate potential security risks, our facilities and systems, and those of our third-party service providers, could be vulnerable to cybersecurity incidents, computer viruses, lost or misplaced data, programming errors, human errors, acts of vandalism, viruses, bugs, worms, or other malicious codes, malware, including as a result of advanced persistent threat intrusions, and other

attacks by computer hackers, cracking, application security attacks, social engineering, including through phishing attacks, supply chain attacks and vulnerabilities through our third-party service providers, denial-of-service attacks, such as credential stuffing, credential harvesting, personnel misconduct or error, supply-chain attacks, software bugs, server malfunctions, software or hardware failures, loss of data or other information technology assets, adware, telecommunications failures, earthquakes, fires, floods, and other similar threats. Any steps we take to deter, identify, and mitigate these risks may not be successful and may cause us to incur increasing costs. Our business will also be harmed if our laboratory partners and potential laboratory partners believe our service is unreliable. Moreover, despite network security and back-up measures, some of our servers are potentially vulnerable to physical or electronic break-ins, malicious computer software (malware), and similar disruptive problems.

Such threats are prevalent and continue to rise, are increasingly difficult to detect, and come from a variety of sources, including traditional computer "hackers," threat actors, "hacktivists," organized criminal threat actors, personnel, such as through theft or misuse, sophisticated nation states, and nation-state-supported actors. In particular, ransomware attacks, including those from organized criminal threat actors, nation-states and nation-state supported actors, are becoming increasingly prevalent and severe and can lead to significant interruptions, delays, or outages in our operations, loss of data, including sensitive customer information, loss of income, significant extra expenses to restore data or systems, reputational loss and the diversion of funds.

Some threat actors also now engage and are expected to continue to engage in cyber-attacks, including without limitation nation-state actors, for geopolitical reasons and in conjunction with military conflicts and defense activities. During times of war and other major conflicts, we, the third parties upon which we rely, and our customers may be vulnerable to a heightened risk of these attacks, including retaliatory cyber-attacks, that could materially disrupt our systems and operations, supply chain and ability to produce, sell and distribute our goods and services.

While we take steps to detect and remediate vulnerabilities, we may not be able to detect and remediate all vulnerabilities because the threats and techniques used to exploit such vulnerabilities change frequently and are often sophisticated in nature. Therefore, such vulnerabilities could be exploited but may not be detected until after a cybersecurity incident has occurred, if at all. Further, we may experience delays in developing and deploying remedial measures designed to address any such identified vulnerabilities.

Failures or significant downtime of our information technology systems, or those used by our third-party service providers, could prevent us from conducting our comprehensive genomic analyses, preparing, and providing reports and data to partners and physicians, billing payors, processing reimbursement appeals, handling patient or physician inquiries, conducting research and development activities, and managing the administrative aspects of our business. We may also need to expend significant additional resources to protect against cybersecurity threats or to address actual breaches or to redress problems caused by cybersecurity breaches. Additionally, to the extent that any disruption or security breach results in a loss or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we may incur significant liability. Any cybersecurity incident, or disruption or loss of information technology or telecommunications systems on which critical aspects of our operations depend could result in significant expenses and have an adverse effect on our business. Applicable data privacy and security obligations may require us to notify relevant stakeholders, regulatory authorities, and other individuals of cybersecurity incidents, and take other remedial measures. Such disclosures and measures are costly, and the disclosure or the failure to comply with such requirements could lead to adverse consequences. Any such event could also result in legal claims or proceedings, liability under laws that protect the privacy of personal information and significant regulatory penalties, and damage to our reputation and a loss of confidence in us and our ability to conduct clinical trials, which could delay the clinical development of our product candidates.

We rely on a limited number of suppliers, or, in some cases, a sole supplier, for some of our laboratory equipment and may not be able to find replacements or immediately transition to alternative suppliers.

We believe that there are only a few equipment manufacturers that are currently capable of supplying and servicing the sequencing equipment necessary for our laboratory operations. For example, we rely on Illumina as a key supplier for certain sequencing equipment used for our processes. We may not be able to obtain acceptable substitute equipment from another supplier on the same basis or at all. Even if we are able to obtain acceptable substitutes from replacement suppliers, their use could require us to significantly alter our laboratory operations. An interruption in our laboratory operations could occur if we encounter delays or difficulties in securing or maintaining the proper function of this laboratory equipment. Any such interruption could negatively impact research and development and launches of new products or solutions, and significantly affect our business, financial condition, results of operations, and reputation.

The loss or transition of any member of our senior management team, or our inability to attract and retain new talent, could adversely affect our business.

Our success depends on the skills, experience, and performance of key members of our senior management team. The individual and collective efforts of these employees will be important as we continue to develop the CENTOGENE Biodatabank and additional products and solutions, and as we expand our commercial activities. The loss or incapacity of existing members of our senior management team could adversely affect our operations if we experience difficulties in hiring qualified successors.

The complexity inherent in integrating a new key member of the senior management team with existing senior management may limit the effectiveness of any such successor or otherwise adversely affect our business. Leadership transitions can be inherently difficult to manage and may cause uncertainty or a disruption to our business or may increase the likelihood of turnover of other key officers and employees. Specifically, a leadership transition in the commercial team may cause uncertainty about or a disruption to our commercial organization, which may impact our ability to achieve sales and revenue targets.

Our research and development programs and laboratory operations depend on our ability to attract and retain highly skilled scientists and technicians. We may not be able to attract or retain qualified scientists and technicians in the future due to the intense competition for qualified personnel among life science businesses globally. We also face competition from universities and public and private research institutions in recruiting and retaining highly qualified scientific personnel. We may have difficulties locating, recruiting, or retaining qualified sales people. Recruitment and retention difficulties can limit our ability to support our research and development and sales programs.

International expansion of our business exposes us to new and complex business, regulatory, political, operational, financial, and economic risks.

Our business strategy incorporates plans for significant expansion in the countries in which we currently operate and internationally. Doing business internationally involves several risks, including:

- multiple, conflicting, and changing laws and regulations such as data protection laws, privacy regulations, tax laws, export and import restrictions, employment laws, regulatory requirements (including requirements related to patient consent, testing of genetic material and reporting the results of such testing) and other governmental approvals, permits, and licenses, or government delays in issuing such approvals, permits, and licenses;
- failure to obtain regulatory approvals for the manufacture and sale of our products and use of our products and solutions in various countries;
- transition and management of our former distribution relationships in various countries;
- potentially relevant third-party intellectual property rights;
- difficulties in staffing and managing foreign operations;
- complexities and difficulties in obtaining, maintaining, protecting and enforcing our intellectual property rights;
- logistics and regulations associated with preparing, shipping, importing and exporting tissue and blood samples, including infrastructure conditions, transportation delays, and customs;
- limits in our ability to penetrate new geographical regions due to competition;
- logistical issues or increases in costs of transporting tests and samples since our diagnostic tests are conducted primarily in Germany;
- financial risks, such as the impact of local and regional financial crises on demand and payment for our products and solutions, and exposure to foreign currency exchange rate fluctuations;

- risks associated with operations in countries which have experienced, or are currently experiencing, high rates of inflation which increase our costs, inhibit economic growth and could lead to reduced demand for our products and solutions;

- natural disasters, political, and economic instability, including wars, terrorism, and political unrest, outbreak of disease, boycotts, curtailment of trade, and other business restrictions; and

- regulatory and compliance risks that relate to maintaining accurate information and control over sales and distribution activities that may fall within the purview of the United States Foreign Corrupt Practices Act (the "FCPA") or comparable foreign regulations, including its books and records provisions, or its anti-bribery provisions.

Any of these factors could significantly harm our future international expansion and operations and, consequently, our revenue and results of operations. The difference in regulations under the laws of the countries in which we may expand and the laws of the countries in which we currently operate may be significant and, in order to comply with such new laws, we may have to implement global changes to our products and solutions or business practices. Such changes may result in additional expense to us and either reduce or delay development of our products and solutions, commercialization of our biomarkers and other solutions or expansion of our data repository and biobank. In addition, any failure to comply with applicable legal and regulatory obligations could affect us in a variety of ways that include, but are not limited to, significant criminal, civil and administrative penalties, and restrictions on certain business activities. Also, the failure to comply with applicable legal and regulatory obligations could result in the disruption of our activities in these countries.

Failure to manage these and other risks may have a material adverse effect on our operations in any country and on our business as a whole.

Implementation of partnership agreements with our pharmaceutical partners may result in material unanticipated problems, expenses, liabilities, competitive responses, loss of client relationships and diversion of management's attention.

The negotiation of our existing partnership agreements, as well as any new partnership agreements that we enter into, take up significant management time and resources. Moreover, in part due to the complex nature of our partnership agreements, which typically provide for research and development collaboration as well as utilization of our patient screening processes, we may need to expend capital and dedicate manpower to meeting the requirements of our pharmaceutical partners. Any partnership agreements that we enter into in the future may contain restrictions on our ability to enter into potential collaborations with other third parties, or to otherwise provide products and solutions in connection with a particular rare disease indication. As a result of these and other factors, our partnership agreements may result in material unanticipated problems, expenses, liabilities, competitive responses, loss of client relationships and diversion of management's attention.

Many of these factors will be outside of our control, and any one of them could result in increased costs, decreases in the amount of expected revenues and diversion of management's time and energy, which could materially impact our business, financial condition, and results of operations. As a result, we cannot assure you that our relationship with any pharmaceutical partner will result in the realization of the anticipated benefits.

If our products and solutions do not perform as expected, we may fail to achieve or maintain sales of our products and solutions.

Our success depends on the market's confidence that we can provide accurate diagnostic testing products and reliable, high-quality rare and neurodegenerative disease information solutions. Our partnerships with our pharmaceutical partners and clients are typically designed to provide results in respect of a particular disease, and our preliminary assessments or knowledge about such disease may necessarily be limited by the amount of information currently available. As a result, the work we undertake on behalf of our pharmaceutical partners and clients may not yield the results that our pharmaceutical partners and clients expect or anticipate. We believe that our pharmaceutical partners and clients are likely to be particularly sensitive to solution and testing service defects and errors, including if our products or services fail to detect genomic or other alterations with high accuracy from clinical specimens or if we fail to accurately develop a biomarker.

Moreover, we may fail to maintain the accuracy and reproducibility we have demonstrated to date with our genetic or other testing services, particularly for clinical samples, as our test volume increases. The sequencing process yields that we achieve depend on the design and operation of our sequencing process, which uses several complex and sophisticated biochemical, informatics, optical, and mechanical processes, many of which are highly sensitive to external factors. An operational or technological failure in

one of these complex processes or fluctuations in external variables may result in sequencing processing yields that are lower than we anticipate or that vary between sequencing runs. In addition, we are regularly evaluating and refining our sequencing process. These refinements may initially result in unanticipated issues that further reduce our sequencing process yields or increase the variability of our sequencing process yields. Errors, including if our products or solutions fail to detect genomic variants with high accuracy, or mistakes, including if we fail to or incompletely or incorrectly identify the significance of gene variants, could have a significant adverse impact on our business.

Hundreds of genes can be implicated in some disorders, and overlapping networks of genes and symptoms can be implicated in multiple conditions. As a result, a substantial amount of judgment is required to interpret testing results for an individual patient and to develop an appropriate patient report. As a result, we may make errors in our interpretation of testing results, which could impair the results of our tests and adversely impact the quality of our overall knowledge base. The failure of our products or solutions to perform as expected would significantly impair our operating results and our reputation. We may also be subject to legal claims arising from, or loss of business as a result of, any defects or errors in our products and solutions.

We may fail to manage our future growth effectively, which could make it difficult to execute our business strategy.

We anticipate growth in our business operations. This future growth could create strain on our organizational, administrative and operational infrastructure, including laboratory operations, quality control, customer service, and sales force management. We may fail to maintain the quality or expected turnaround times of our products and services or satisfy customer demand as it grows. Our ability to manage our growth properly will require us to continue to improve our operational, financial and management controls, as well as our reporting systems and procedures.

We plan to expand our laboratory and technical operations as our business grows. However, any expansion strategies and any future growth could create strain on our organizational, administrative and operational infrastructure, including laboratory operations, quality control, customer service and sales force management. We may not be able to maintain the quality or expected turnaround times of our testing services or satisfy client demand as our business grows. Our ability to manage our growth properly will require us to continue to improve our operational, financial, and managerial controls, as well as our reporting systems and procedures, and to obtain appropriate regulatory approvals and meet regulatory standards applicable for the operation of our business.

The development of new products and solutions is a complex process, and we may be unable to successfully commercialize new products or solutions on a timely basis or at all.

New diagnostic test products and our interpretation-based solutions, take time to develop and commercialize. We may fail to develop and commercialize new diagnostic tests or solutions on a timely basis. Moreover, there can be no assurance that our products or solutions will be capable of meeting the needs of our clients and pharmaceutical partners, or that we will be able to commercialize them at all. Before we can commercialize any new products or solutions, we need to expend significant funds in order to:

- conduct substantial research and development, including epidemiology and validation studies and potentially patient scope analyses;
- further develop our laboratory processes or equipment;
- allocate laboratory space for new solutions or further scale our infrastructure to accommodate research and development or new equipment;
- in the case of products or solutions for which we are seeking regulatory or marketing approval, pursue such regulatory approval.

The development of new products and solutions involves risk, and development efforts may fail for many reasons, including the failure of any product or solution to perform as expected, a lack of validation or reference data, failure to demonstrate utility of a test or solution, or, in the case of solutions for which we are seeking or have received the Food and Drug Administration ("FDA"), European Commission and European Medicines Agency ("EMA"), German Federal Institute for Medicinal Products and Medical Devices (*Bundesinstitut für Arzneimittel und Medizinprodukte*), or comparable authorities' or agencies' approval, the inability to obtain such approval or the loss of such approval. We cannot predict whether or when we will successfully complete development of each biomarker and if we will receive patent protection on any biomarkers that we develop.

As we develop new products and solutions, we will have to make significant investments in development, marketing, and selling resources. Any failure to develop or deliver adequate products or solutions to our clients and pharmaceutical partners on a timely basis or at all could significantly affect our business, financial condition, results of operations, and reputation.

We have limited experience in marketing and selling our products and solutions and we may fail to expand our direct sales and marketing force to adequately address our pharmaceutical partners' and clients' needs.

We have limited experience in marketing and selling our products and solutions to pharmaceutical partners, and currently rely on a small sales force to sell our products and solutions. We may not be able to market, sell, or distribute our existing products and solutions or other services we may develop effectively enough to support our planned growth.

Our future sales and further business growth will depend in large part on our ability to develop, and expand, our sales force and to increase the scope of our marketing efforts. Our target market of pharmaceutical partners and clients is a diverse market with individualized needs. As a result, we believe it is necessary to develop a sales force that includes sales representatives with specific rare and neurodegenerative disease technical backgrounds. We will also need to attract and develop marketing personnel with industry expertise. Competition for such employees is intense. We may not be able to attract and retain personnel or be able to build an efficient and effective sales and marketing force, which could negatively impact sales and market acceptance of our products or solutions and limit our revenue growth and potential profitability. Our expected future growth will impose significant added responsibilities on members of management, including the need to identify, recruit, maintain, and integrate additional employees. Our future financial performance will depend in part on our ability to manage this potential future growth effectively, without compromising quality.

If we believe a significant market opportunity for our products or solutions exists in a particular jurisdiction in which we do not have direct access through one of our existing offices, from time to time we may enlist distribution partners and local laboratories to assist with sales, distribution, and client support. We may not be successful in finding, attracting, and retaining distribution partners or laboratories, or we may not be able to enter into such arrangements on favorable terms. Sales practices utilized by our distribution partners that are locally acceptable may not comply with sales practices standards required under German, Dutch, the United States or other laws that apply to us, which could create additional compliance risk. If these additional sales and marketing efforts are not successful, we may not achieve significant market acceptance for our solutions in these markets, which could harm our business.

The knowledge and interpretation-based solutions we provide to our pharmaceutical partners may not achieve significant commercial market acceptance.

Our knowledge and interpretation-based solutions may not gain significant acceptance in the orphan drug development market and, therefore, may not generate substantial revenue or profits for us. Our ability to achieve increased commercial market acceptance for our existing knowledge and interpretation-based solutions will depend on several factors, including:

- our ability to convince the medical and pharmaceutical community of the clinical utility of our solutions and their potential advantages over existing and new solutions;
- the willingness of our pharmaceutical partners, as well as their physicians and patients, to utilize our solutions; and
- the agreement by commercial third-party payors and government payors to reimburse any treatments provided by our pharmaceutical partners, the scope and amount of which will affect a partners' willingness or ability to pay for our solutions and will influence physicians' decisions to recommend our solutions.

We believe that the successful completion of clinical trials by partners that use our solutions, publication of scientific and medical results based on the information gained from our CENTOGENE Biodatabank in peer-reviewed journals, and presentations at leading conferences are critical to the broad adoption of our solutions. Publication in leading medical journals is subject to a peer-review process, and peer reviewers may not consider the results of studies involving our solutions sufficiently novel or worthy of publication.

The failure to be listed in physician guidelines or the failure of our solutions to produce favorable results for our partners or to be published in peer-reviewed journals could limit the adoption of our solutions. Failure to achieve widespread market acceptance of our solutions would materially harm our business, financial condition, and results of operations.

Failure to keep pace with the rapidly evolving industry in which we operate could make us obsolete.

Our business relies on commercial activities in the rare and neurodegenerative disease genetic or other testing and diagnostics field. In recent years, there have been numerous advances in methods used to analyze very large amounts of genomic information and the role of genetics and gene variants in rare diseases and treatments, including through the development of biomarkers. Our industry has and will continue to be characterized by rapid technological change, increasingly larger amounts of data, frequent new testing service introductions and evolving industry standards. Our future success will also depend on our ability to keep pace with the evolving needs of our clients and pharmaceutical partners on a timely and cost-effective basis and to pursue new market opportunities that develop because of technological and scientific advances. Our current products and solutions could become obsolete unless we continually update our offerings to reflect new scientific knowledge about genes and genetic variations and their role in rare diseases and treatments. If we fail to anticipate or respond adequately to technological developments, demand for our products and solutions will not grow and may decline, and our business, revenue, financial condition, and operating results could suffer materially.

Moreover, many companies in this market are offering, or may soon offer, products and solutions that compete with our products and solutions, in some cases at a lower cost than ours. We cannot assure you that research and discoveries by other companies will not render our existing or potential products and solutions uneconomical or result in tests superior to our existing tests and those we may develop. We also cannot assure you that any of our existing products and solutions, or those that we develop in the future, will be preferred by our clients, pharmaceutical partners, physicians or other payors to any existing or newly developed technologies or tests. If we fail to maintain competitive test products, our business, prospects, financial condition and results of operations could be adversely affected.

We may fail to successfully respond to increasing demand for our products and solutions.

As our sales volume grows, we will need to continue to increase our infrastructure for sample intake, customer service, billing and general process improvements, expand our internal quality assurance program, and extend our platform to support comprehensive genomic and other analyses at a larger scale within expected turnaround times. We will need additional certified laboratory scientists and other scientific and technical personnel to process higher volumes of our products and solutions. Portions of our process cannot be fully automated and will require additional personnel to scale. We will also need to purchase additional equipment, some of which can take a long time to procure, set up, and validate, and increase our software and computing capacity to meet increased demand.

We may fail to successfully implement any of these increases in scale, expansion of personnel, equipment, software and computing capacities, or process enhancements and we may have inadequate space in our laboratory facilities to accommodate such required expansion.

As additional products and solutions are commercialized, we will need to incorporate new equipment, implement new technology systems and laboratory processes, and hire new personnel with different qualifications. Failure to manage this growth or transition could result in turnaround time delays, higher product costs, declining product quality, deteriorating customer service, and slower responses to competitive challenges. A failure in any one of these areas could make it difficult or impossible for us to meet market expectations for our products and solutions and could damage our reputation and the prospects for our business.

We may fail to obtain favorable pricing for our products and solutions and to meet our profitability expectations.

If we are not able to obtain favorable pricing for our products and solutions to enable us to meet our profitability expectations, our revenues and profitability could materially suffer. The rates we are able to charge for our products and solutions are affected by a number of factors, including:

- general economic and political conditions in the countries in which we operate;
- the competitive environment in our industry, as described below;
- our clients' and pharmaceutical partners' cost sensitivities;
- our ability to accurately estimate, attain and sustain revenues and royalties, margins, and cash flows over the full partnership period for our solutions, which includes our ability to estimate the impact of inflation and foreign exchange on our margins over long-term contracts; and

- procurement practices of our pharmaceutical partners and clients and their use of third-party advisors.

The competitive environment in our industry affects our ability to obtain favorable pricing in several ways, all of which could have a material negative impact on our results of operations. The less we are able to clearly convey the value of our products and solutions or differentiate our products and solutions, the more risk we have that they will be seen as commodities, with price being the driving factor in selecting us as a partner. Competitors may be willing, at times, to price contracts or products lower than we do to enter the market or increase market share. Further, if competitors develop and implement methodologies that yield greater efficiency or efficacy, they may be able to offer products and solutions like ours at lower prices.

Ethical, legal and social concerns related to the use of genomic or other diagnostic information could reduce demand for our rare and neurodegenerative disease knowledge and interpretation-based products and solutions.

Genomic testing, like that conducted for our pharmaceutical partners and clients using our genetic rare and neurodegenerative disease information platform, has raised ethical, legal, and social issues regarding privacy and the appropriate uses of the resulting information. Governmental authorities could, for social or other purposes, limit or regulate the use of genomic information or genomic testing or prohibit testing for genetic predisposition to certain conditions, particularly for those that have no known cure. Similarly, these concerns may lead patients to refuse to use genomic tests even if permissible.

Ethical and social concerns may also influence the United States and foreign patent offices and courts about patent protection for technology relevant to our business. These and other ethical, legal and social concerns may limit market acceptance of our products and solutions or reduce the potential markets for products and solutions enabled by our genetic rare and neurodegenerative disease information platform, either of which could have an adverse effect on our business, financial condition, or results of operations.

We have limited resources to be expended on research and development programs. Our resource allocation decisions may lead us to focus on research and development programs that are not commercially viable, and as a result we may be unable to recover the costs incurred under these efforts.

Because we have limited financial and managerial resources, we focus on research and development programs that we identify for rare and neurodegenerative diseases in collaboration with our pharmaceutical partners or based on our assessment of the market needs. As a result, we may forego or delay pursuit of opportunities with other orphan drug candidates or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial drugs or profitable market opportunities. Our spending on current and future research and development programs for specific diseases may not yield any relevant results that are helpful to our existing programs or assist in the creation of any commercially viable drugs. If we do not accurately evaluate the commercial potential or target market for a particular drug candidate, we may relinquish valuable rights to that drug candidate through collaboration, licensing, or other royalty arrangements.

If we fail to compete successfully with our competitors, including new entrants in the market, we may be unable to increase or sustain our revenue or achieve and sustain profitability.

While personalized genomic and multiomic diagnostics is a relatively new area of science, we face competition from companies that offer tests or have conducted research to profile genes and gene expression in various rare and neurodegenerative diseases. Our principal competition comes from diagnostic companies that offer diagnostic tests that capture genetic, phenotypic and epidemiological data, as well as laboratories and academic research centers. Many hospitals and academic medical centers may also seek to perform the type of genetic or other testing and knowledge and interpretation-based solutions we offer at their own facilities or using their own research capabilities.

Some of our present and potential competitors may have substantially greater financial, marketing, technical or manufacturing resources than we do. Our competitors may also be able to respond more quickly to new technologies or processes and changes in client demands. They may also be able to devote greater resources towards the development, promotion and sale of their products or solutions for pharmaceutical partners than we can. As competition in our market increases, we may also be subject to increased litigation risk, including in connection with patents as well as our marketing practices and other promotional activities. In addition, our current and potential competitors may make strategic acquisitions or establish cooperative relationships among themselves or with third parties that increase their ability to address the needs of our physicians or partners. If we fail to compete successfully against current or future competitors, our business will be harmed.

Because our genetic or other testing and knowledge and interpretation-based solutions and products have limited patent protection, new and existing companies worldwide could seek to develop genetic or other tests or similar products and solutions that compete with ours. These competitors could have technological, financial, and market access advantages that are not currently available to us and they could develop and commercialize competing products and solutions faster than we are able to do so. Increased competition, including price competition, could have a material adverse impact on our net revenues and profitability.

If our pharmaceutical partners experience any of a number of possible unforeseen events in connection with their clinical trials, our ability to commercialize future solutions or improvements to existing solutions could be delayed or prevented.

Our pharmaceutical partners may experience numerous unforeseen events during, or because of, clinical trials that could delay or prevent their ability to continue or conduct further clinical trials or obtain regulatory approval of or commercialize future orphan drugs. Unforeseen events that could delay or prevent our pharmaceutical partners' ability to conduct or support clinical trials, obtain regulatory approval of, or commercialize future orphan drugs include:

- regulatory authorities or ethical review boards, Institutional Review Boards (IRBs), may not authorize the commencement of a clinical trial or may not accept clinical trial protocols;
- clinical trials may produce negative or inconclusive results, and our pharmaceutical partners may decide, or regulatory authorities may require them, to abandon development programs;
- the number of patients, or amount of data, required for clinical trials may be larger than we or our pharmaceutical partners anticipate, patient enrollment in clinical trials may be slower than we or our pharmaceutical partners anticipate or patients may drop out of these clinical trials at a higher rate than we or our pharmaceutical partners anticipate;
- failure to conduct our clinical trials in accordance with applicable regulatory requirements of the FDA and of the regulatory authorities responsible for authorization or oversight of the conduct of clinical trials in other countries;
- inability to develop companion diagnostic tests for a particular rare disease or to add companion diagnostic claims to existing tests, and/or obtain regulatory approval to market any such test on a timely basis or at all;
- due to a new legislative framework in the EU on the conduct of clinical trials on medicinal products for human use, the Regulation (EU) No. 536/2014 of April 16, 2014 ("CTR"), which results in EU-wide harmonization of the authorization process, approval and monitoring of clinical trials in the EU, there may be delays in initiating new clinical trials in the EU until our pharmaceutical partners become familiar with the new regulatory requirements, in particular the new authorization procedure via the new Clinical Trial Information System database ("CTIS");
- clinical trials of our pharmaceutical partners for which we are developing companion diagnostic tests may suggest or demonstrate that our partners' treatments are not as efficacious and/or as safe as other similar treatments or that our companion diagnostic test is not essential to determine which patients would benefit from these treatments;
- mergers and acquisitions could have an impact on the priorities of our pharmaceutical partners; and
- our pharmaceutical partners may decide, or regulatory authorities or institutional review boards may require them, to suspend or terminate clinical research for various reasons, including cost, adequate end market size, available data, or non-compliance with regulatory requirements.

If our pharmaceutical partners choose not to conduct clinical trials for treatments in the rare or neurodegenerative disease space due to the above factors or otherwise, they may have less need for our products and solutions and may therefore choose not to partner with us. Our ability to continually expand our existing data repository depends on our ability to maintain partnerships with our pharmaceutical clients. Should our partners delay or cancel their ongoing existing trials or choose not to begin new trials for treatments in the disease areas relevant to us, our ability to commercialize future solutions or improvements to existing solutions could be delayed or prevented.

Our employees, principal investigators, consultants, and commercial partners may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements and insider trading.

We are exposed to the risk of fraud or other misconduct by our employees, principal investigators, consultants, and commercial partners, including our distributors in our diagnostics business and pharmaceutical partners in our pharmaceutical business. Misconduct by these parties could include intentional failures to comply with the regulations of applicable regulatory authorities (including the FDA and the European Commission and EMA), comply with healthcare fraud and abuse laws and regulations, report financial information or data accurately, or disclose unauthorized activities to us. In particular, sales, marketing, and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, bribery, kickbacks, self-dealing, and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, client incentive programs, and other business arrangements. Such misconduct could also involve the improper use of information obtained during clinical studies, which could result in regulatory sanctions and cause serious harm to our reputation. We currently have an insider trading policy as well as a code of conduct applicable to all of our employees and conduct a background check before entering into any new contracts with third party distributors, but it is not always possible to identify and deter employee or third-party misconduct, and our insider trading policy and code of conduct, due diligence and the other precautions we take to detect and prevent such misconduct may not be effective in controlling unknown or unmanaged risks or losses, or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could result in the imposition of significant fines or other sanctions, which could have a significant impact on our business. Whether or not we are successful in defending against such actions or investigations, we could incur substantial costs, including legal fees, and divert the attention of management in defending ourselves against any of these actions or investigations.

We may lose the support of key thought leaders and fail to establish our products and solutions as a standard of care for patients with rare and neurodegenerative diseases, which may limit our revenue growth and ability to achieve future profitability.

We have established relationships with leading rare and neurodegenerative disease thought leaders at premier institutions and disease networks. If we suffer harm to our reputation, whether due to actions outside of our control or otherwise, our relationships with these persons may suffer which could adversely impact our business, including our key pharmaceutical partnerships and diagnostic client relationships. Moreover, if these key thought leaders determine that the CENTOGENE Biodatabank, our existing products or solutions or other new products or solutions that we develop are not useful to our partners' development of treatments for rare and neurodegenerative diseases, that alternative technologies are more effective, or if they elect to use internally developed products or solutions, we could encounter significant difficulty validating our testing platform, driving adoption, or establishing our genetic knowledge and interpretation-based solutions and tests as a standard of care, which would limit our revenue growth and our ability to achieve profitability.

Security breaches, loss of data, and other disruptions could compromise sensitive information related to our business or prevent us from accessing critical information and expose us to liability, which could adversely affect our business and our reputation.

In the ordinary course of our business, we collect and store sensitive data, including legally protected health information, personally identifiable information, intellectual property, and proprietary business information owned or controlled by us or physicians, pharmaceutical partners and other clients. We manage and maintain our applications and data utilizing a combination of on-site systems, managed data center systems, and cloud-based data center systems. We also communicate, and facilitate the exchange of, sensitive patient data to and between ourselves and physicians of the patients for whom we conduct diagnostic tests through an online client-facing portal, CentoPortal®. These applications and related data encompass a wide variety of business-critical information including legally protected health information, personally identifiable information, research and development information, commercial information, and business and financial information. We face a number of key risks related to the protection of this information, including unauthorized access risk, inappropriate or unauthorized disclosure risk, inappropriate modification risk and the risk of being unable to adequately monitor our controls.

The secure processing, storage, maintenance, and transmission of this critical information is vital to our operations and business strategy. Our information technology and infrastructure, and that of our third-party disaster recovery back-up providers, may be vulnerable to attacks by hackers or malicious software or breached due to personnel error, unauthorized access, malfeasance, or other disruptions. Any such breach or interruption could compromise the security or integrity of our networks, and the information stored there could be accessed by unauthorized parties or publicly or incorrectly disclosed, corrupted, lost, or stolen. Any such access, disclosure, corruption, other loss, or theft of information could result in governmental investigations, class action legal claims or proceedings, liability under laws that protect the privacy of personal information, such as but not limited to the Health Insurance Portability and Accountability Act ("HIPAA"), the General Data Protection Regulation (EU 2016/679) ("GDPR"), the United Kingdom's General Data Protection Regulation ("UK GDPR") and regulatory penalties. Although we have implemented security measures and a formal, dedicated enterprise security program to prevent unauthorized access to person data, applications such as our online client-facing portals are currently accessible through public web portals and may, in the future, be accessible through dedicated mobile applications, and there is no guarantee we can absolutely protect our online portals or our mobile applications from breach. Unauthorized access to, or loss or dissemination of, the data embedded in or transferred via these applications could also disrupt our operations, including our ability to conduct our analyses, provide test results, bill our pharmaceutical or other partners, provide client assistance solutions, conduct research and development activities, collect, process, and prepare company financial information, provide information about our products and solutions and other pharmaceutical partner and physician education and outreach efforts through our website, manage the administrative aspects of our business, and damage our reputation, any of which could adversely affect our business.

HIPAA, which establishes comprehensive federal protection for the privacy and security of health information, was expanded and strengthened by Subtitle D of the Health Information Technology for Economic and Clinical Health Act ("HITECH") provisions of the American Recovery and Reinvestment Act of 2009. HIPAA, as amended by HITECH, applies to health plans, healthcare clearing houses, and healthcare providers that conduct certain healthcare transactions electronically, called "Covered Entities,", as well as individuals or entities that perform services to Covered Entities involving the use, or disclosure of, individually identifiable health information or "PHI" under HIPAA. Such service providers are called "Business Associates." Under HIPAA, as amended by HITECH, the United States Department of Health and Human Services ("HHS") has issued regulations to protect the privacy and security of PHI ("HIPAA Regulations"). HIPAA also regulates and standardizes the codes, formats and identifiers used in certain healthcare transactions and standardization of identifiers for health plans and providers, for example insurance billing. Any non-compliance with HIPAA and HITECH and related penalties, could adversely impact our business.

HIPAA's privacy regulations protect medical records and other PHI by limiting its use and release, giving individuals a variety of rights with respect to their PHI, including the right to access their medical records and limiting most disclosures of PHI to the minimum amount necessary to accomplish an intended purpose.

HIPAA's security rule requires the implementation of administrative, physical, and technical safeguards and the adoption of written security policies and procedures to ensure the confidentiality, integrity and availability of PHI stored electronically. HIPAA also requires Covered Entities and Business Associates to enter into business associate agreements with certain required provisions documenting assurances of compliance with applicable HIPAA regulations by the Business Associate.

HIPAA Regulations also require breach notification. Covered Entities must report breaches of PHI that have not been encrypted or otherwise secured in accordance with guidance from the Secretary of HHS (the "Secretary"). Required breach notices must be made as soon as is reasonably practicable, but no later than sixty days following discovery of the breach. Reports must be made to affected individuals and to the Secretary and in some cases, they must be reported through local and national media, depending on the size of the breach. Large-scale breaches affecting 500 or more individuals must be immediately reported to the Secretary and are then publicly posted on an HHS website. To avoid penalties for failure to comply with breach notification provisions, we must ensure that breaches of unsecured PHI are promptly detected and reported within the company, so that we can make all required notifications on a timely basis. However, even if we make required reports on a timely basis, we may still be subject to penalties for the underlying breach and at risk of significant penalties and reputational harm if we experience a large-scale data breach.

We are currently subject to the HIPAA Regulations as a Covered Entity and maintain an active compliance program. We are subject to audit by HHS, and we may be investigated in connection with a privacy or data security complaint or reported breach. HHS may also initiate a compliance review focusing on all or any part of our HIPAA compliance program. Significant civil and criminal fines and other penalties may be imposed for violating HIPAA directly, and in connection with acts or omissions of any agents, including a downstream Business Associate, as determined according to the federal common law of agency. Civil penalties are adjusted for inflation on an annual basis and can exceed one million dollars per year for failure to comply with a HIPAA requirement.

A single breach incident can violate multiple requirements. Additionally, a person who knowingly obtains or discloses PHI in violation of HIPAA may face criminal penalties, including fines and imprisonment, which increase if the wrongful conduct involves false pretenses or the intent to sell, transfer or use PHI for commercial advantage, personal gain or malicious harm. Covered entities are also subject to enforcement by state Attorneys General who were given authority to enforce HIPAA.

We are subject to significant foreign currency exchange controls in certain countries in which we operate.

We are in some countries, and could become elsewhere, subject to strict restrictions on the movement of cash and the exchange of foreign currencies, which limits our ability to use this cash across our global operations. We also face risks related to the collection of payments due to us from our major pharmaceutical partners or clients that are located in certain geographical regions with foreign currency or international monetary controls. This risk could increase as we continue our geographic expansion. In particular, for the years ended December 31, 2023 and 2022 we derived 42.7% and 41.9% respectively, of our total revenues from our Middle East region. Certain Middle East economies have adopted or been subject to international restrictions on the ability to transfer funds out of the country and convert local currencies into euros. This may increase our costs and limit our ability to convert local currency into euros and transfer funds out of certain countries. Any shortages or restrictions may impede our ability to convert these currencies into euros and to transfer funds, including for the payment of dividends or interest or principal on our outstanding debt.

We may acquire assets or other businesses that could negatively affect our operating results, dilute our shareholders' ownership or increase our debt.

In addition to organic growth, we may pursue growth through the acquisition of assets or other businesses that may enable us to enhance our technologies and capabilities, expand our geographic market, add experienced management personnel or add new or improve our existing products and solutions. We also may pursue strategic alliances and joint ventures that leverage our technical platform and industry knowledge to expand our products and solutions. Negotiating these transactions and the formation of strategic alliances or joint ventures can be time-consuming and expensive and may be subject to third-party approvals as well as approvals from governmental authorities, which are beyond our control. In addition, some third parties may choose not to enter into partnership or collaboration agreements with us because of our existing relationships with other pharmaceutical partners. Consequently, we may not be able to complete any contemplated transactions on favorable terms or at all, and we can make no assurance that such transactions, once undertaken and announced, will close.

An acquisition or investment may result in unforeseen operating difficulties and expenditures, including in integrating businesses, products and solutions, personnel, operations, and financial, accounting, and other controls and systems, and retaining key employees, with the assumption of unknown liabilities or known liabilities that prove greater than anticipated, and in retaining the clients of any acquired business. Any such difficulties could disrupt our ongoing operations or require management resources that we would otherwise focus on developing our existing business. Future acquisitions could result in the use of our available cash and marketable securities, potentially dilutive issuances of equity securities, the incurrence of debt, contingent liabilities, or impairment expenses related to goodwill, and impairment or amortization expenses related to other intangible assets, which could harm our financial condition. As a result, we may not realize the anticipated benefits of any acquisition, technology license, strategic alliance, or joint venture. These challenges related to acquisitions or investments could adversely affect our business, results of operations, and financial condition.

We may enter into joint ventures with third parties, which may subject us to various risks, including limited decision-making authority, reliance on our joint venture partners' financial condition and the risk of disputes with our joint venture partners, which could adversely affect us.

We may make investments in assets or enter into agreements with companies that we do not control, including joint venture partnerships, or other structures with third parties. If we enter into any joint ventures, we may have limited decision-making authority and we may face the risk of disputes with our joint venture partners, including without limitation potential deadlocks in making major decisions and restrictions on our ability to exit the joint venture. Any disputes that may arise between us and any joint venture partners may result in litigation or arbitration. We may also face risks associated with any joint venture partners' financial condition, including, among other things, the risk of bankruptcy and/or failure to fund their share of required capital contributions. As a result, we may be exposed to liabilities more than our share of any joint venture. Any joint venture partners may also have business interests or goals that are inconsistent with our business interests or goals and may be able to take actions contrary to our policies or objectives. We may, in specific circumstances, be liable for the actions of any joint venture partners. Any of the foregoing may have a material adverse effect on our business, financial condition, and results of operations.

Certain Factors Relating to Our Industry

Regulatory Risks

Our global operations expose us to numerous and sometimes conflicting legal and regulatory requirements, and violation of these requirements could harm our business.

We are subject to numerous, and sometimes conflicting, legal regimes in the countries in which we operate, including on matters as diverse as health and safety standards, marketing and promotional activities, anticorruption, import/export controls, content requirements, trade restrictions, tariffs, taxation, sanctions, immigration, internal and disclosure control obligations, securities regulation, anti-competition, data privacy and labor relations. This includes in emerging markets where legal systems may be less developed or familiar to us. We strive to abide by and maintain compliance with these laws and regulations. Compliance with diverse legal requirements is costly, time-consuming and requires significant resources. Violations of one or more of these regulations in the conduct of our business could result in significant fines, criminal sanctions against us or our supervisory board or officers, prohibitions on doing business and damage to our reputation. Violations of these regulations in connection with the performance of our obligations to our clients or pharmaceutical partners also could result in liability for significant monetary damages, fines and/or criminal prosecution, unfavorable publicity and other reputational damage, restrictions on our ability to process information and allegations by our clients or pharmaceutical partners that we have not performed our contractual obligations. Due to the varying degrees of development of the legal systems of the countries in which we operate, local laws might be insufficient to protect our rights.

Our international operations could be affected by changes in laws, trade regulations, labor and employment regulations, and procedures and actions affecting approval, products and solutions, pricing, reimbursement and marketing of our products and solutions, as well as by inter-governmental disputes. Any of these changes could adversely affect our business. The imposition of new laws or regulations, including potential trade barriers, may increase our operating costs, impose restrictions on our operations or require us to spend additional funds to gain compliance with the new rules, if possible, which could have an adverse impact on our financial condition.

Current and future legislation, in particular legislation related to orphan drugs, may impact overall investment and activity in the rare disease space or our ability to obtain regulatory approvals.

In the United States, the European Union and its member states and some other foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system. These changes could affect our ability to sell profitably any products for which we require approvals. Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access to healthcare.

Specifically, regulatory authorities in some jurisdictions, including the United States and the European Union, may designate drugs for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a drug as an orphan drug if it is a drug intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals annually in the United States, or a patient population of greater than 200,000 in the United States where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the United States. In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers.

Similarly, in the European Union, the European Commission grants orphan drug designation after receiving the opinion of the EMA's Committee for Orphan Medicinal Products on an orphan drug designation application. Orphan drug designation is intended to promote the development of drugs that are intended for the diagnosis, prevention or treatment of life-threatening or chronically debilitating conditions affecting not more than one in 2,000 persons in the European Union and for which no satisfactory method of diagnosis, prevention, or treatment has been authorized (or the product would be a significant benefit to those affected). In addition, designation is granted for drugs intended for the diagnosis, prevention, or treatment of a life-threatening, seriously debilitating or serious and chronic condition and when, without incentives, it is unlikely that sales of the drug in the European Union would be sufficient to justify the necessary investment in developing the drug. In the European Union, orphan drug designation entitles a party to financial incentives, such as reduction of fees or fee waivers, and a ten-year market exclusivity once the drug is on the market.

These legislative initiatives have led to an increase in investment and activity in the rare disease drug development space. In 2020, the EU Commission launched a consultation process to revise the existing legal framework for orphan drugs with the aim of adopting a new regulation to increase the development of new products for patients with rare diseases, to provide faster access to corresponding medicines and to establish an efficient evaluation and approval process for these medicines. The consultation process has already ended, but neither an analysis nor a new draft regulation has yet been published. However, the published consultation working paper "Inception Impact Assessment", inter alia, indicates that the EU Commission acknowledges the granting of market exclusivity as the main incentive, but nevertheless considers that the duration of such exclusivity should be variable or shortened under certain criteria yet to be defined.

On April 26, 2023, the EU Commission adopted a proposal for a new Directive and a new Regulation, which, if enacted, would revise and replace the existing general pharmaceutical legislation in the EU (Regulation 726/2004 and Directive 2001/83/EC) and the legislation on medicines for children and for rare diseases (Regulation 1901/2006 and Regulation 141/2000/EC, respectively). The draft provides for significant changes to the existing legal regime. The draft provides, inter alia, for a shortening of the general market exclusivity period for orphan drugs from ten to nine years, but companies can take advantage of additional market exclusivity periods. The Commission proposal is now under review by the EU Parliament and EU Council and may undergo substantial changes during the ongoing legislative procedure (2023/0131/COD).

If these and other legislative initiatives were to change to become less favorable to orphan drug developers and researchers, it could harm our business, results of operations and financial condition.

We may fail to comply with the complex federal, state, local and foreign laws and regulations that apply to our business and become subject to severe financial and other consequences.

Our laboratory in Germany is subject to the Clinical Laboratory Improvement Amendments of 1998 ("CLIA"), a United States federal law that regulates all clinical diagnostic laboratories that perform testing on specimens derived from humans for the purpose of providing information for the diagnosis, prevention, or treatment of disease. CLIA regulations mandate specific standards in the areas of personnel qualifications, administration, participation in proficiency testing, patient test management, quality control, quality assurance, and inspections. Our laboratory has a current certificate of accreditation under CLIA to conduct all genetic and biochemical analyses offered through our accreditation by the College of American Pathologists ("CAP"). To renew the CLIA certificates, we are subject to a survey and inspection every two years. Moreover, CLIA inspectors may make unannounced inspections of our clinical laboratories at any time.

Any sanction imposed under CLIA, its implementing regulations, or state or foreign laws or regulations governing licensure, or our failure to renew a CLIA certificate, a state or foreign license, or accreditation, could have a material adverse effect on our business. Most CLIA deficiencies are not classified as "condition-level" deficiencies, and there are no adverse effects upon the laboratory operations if the deficiencies are corrected. Remediation of these deficiencies are routine matters, with corrections occurring within several hours or weeks. More serious CLIA deficiencies could rise to the level of "condition-level" deficiencies, and CMS has the authority to impose a wide range of sanctions, including revocation of the CLIA certification along with a bar on the ownership or operation of a CLIA certified laboratory by any owners or operators of the deficient laboratory. There is an administrative hearing procedure that can be pursued by the laboratory in the event of imposition of such sanctions, during which the sanctions are stayed, but the process can take a number of years to complete. If we were to lose our CLIA certification or CAP accreditation, we would not be able to operate our clinical laboratories and perform our genetic or other tests, which would result in material harm to our business and results of operations.

We are also subject to HIPAA, for the U.S samples tested in Germany, under which the Department of Health and Human Services established comprehensive federal standards with respect to the privacy and security of protected health information and requirements for the use of certain standardized electronic transactions; certain of our services, including our online client-facing portals for reporting and research, are subject to these standards and requirements. Amendments to HIPAA under the Health Information Technology for Economic and Clinical Health Act (the "HITECH Act"), and related regulatory amendments, which strengthen and expand HIPAA privacy and security standards, increase penalties for violators, extend enforcement authority to state attorneys general, and impose requirements for breach notification.

We furnish pharmaceutical partners with genomic information that has been de-identified in accordance with HIPAA or anonymized in accordance with GDPR, the UK GDPR and relevant international health information privacy regulations. The laws of certain states and countries may require specific consent from the individual either to retain or utilize certain genetic or other information for research or other purposes even if such information has been de-identified or may require that we obtain a waiver of

such consent from an ethical or privacy review board. Even where we furnish pharmaceutical partners and academic researchers' genomic information that has been de-identified or anonymized in accordance with applicable laws and regulations, pharmaceutical partners or academic researchers may use technology or other methods to link that de-identified or anonymized genomic information to the patient from whom it was obtained in contravention of one or more applicable laws and regulations. Similarly, as we expand our decision support applications and offerings, we may encounter greater regulatory risk, such as compliance with HIPAA, GDPR, the UK GDPR and other regulations governing the use of protected health information and the promotion of FDA approved drugs. A finding that we have failed to comply with any such laws and any remedial activities required to ensure compliance with such laws could cause us to incur substantial costs, to be subject to unfavorable publicity or public opinion, to change our business practices, or to limit the retention or use of genetic or other information in a manner that, individually or collectively, could be adverse to our business.

In the European Union, various regulations apply to genetic or other testing and the use of genomic information. In Germany, the Genetic Diagnosis Act (*Gendiagnostikgesetz*) (the "GenDG") and guidelines and written opinions on novel genetic screenings developed by the Commission on Genetic Testing, an interdisciplinary independent commission established in 2009 in accordance with the GenDG, apply to such testing. The GenDG prohibits us from communicating results of genetic or other tests directly to a patient located within Germany. Instead, the results may only be provided to a physician who is a qualified genetic counsellor under applicable rules. Moreover, as of May 26, 2022, the new Regulation (EU) 2017/746 of the European Parliament and of the Council of April 5, 2017 on in vitro diagnostic medical devices (the "In Vitro Diagnostic Medical Devised Regulation" or "IVDR") became applicable. The IVDR not only regulates the placing on the market of in vitro diagnostic medical devices ("IVD") in the European Union, but also provides for stricter requirements in its Art. 6 with regard to the use of IVD in the context of a commercial activity for the provision of diagnostic or therapeutic services offered by means of an information society service. We are subject to the requirements of the IVDR if we provide services to natural or legal persons established in the EU by using products which qualify as IVD within the meaning of Art. 2 para. 1 IVDR, provided we offer these services "through means of information society services".

In addition to CLIA, GDPR, the UK GDPR, HIPAA, the GenDG and the IVDR, our operations are subject to other extensive federal, state, local, and foreign laws and regulations, all of which are subject to change. Our failure to comply with any such laws and regulations could lead to civil or criminal penalties, exclusion from participation in government healthcare programs, or prohibitions or restrictions on our ability to conduct commercial activities. We believe that we are in material compliance with all statutory and regulatory requirements, but there is a risk that one or more government agencies could take a contrary position. These laws and regulations are complex and are subject to interpretation by the courts and by government agencies. In particular, about the novelties of the IVDR on the provision of services using IVDs, the scope of application of the provisions is unclear and no official practice has yet been established in this regard. If one or more such agencies allege that we may be in violation of any of these requirements, regardless of the outcome, it could damage our reputation and adversely affect important business relationships with third parties.

We are subject to numerous federal, local and foreign laws and regulations; complying with laws pertaining to our business is an expensive and time-consuming process, and any failure to comply could result in substantial penalties and a material adverse effect to our business and operations.

Our operations are subject to extensive federal, state, local and foreign laws and regulations, all of which are subject to change. These laws and regulations currently include, among other things:

- CLIA, which requires that laboratories obtain certification from the federal government, and state licensure laws;
- FDA laws and regulations, including but not limited to requirements for offering LDTs;
- HIPAA, which imposes comprehensive federal standards with respect to the privacy and security of PHI, and requirements for the use of certain standardized electronic transactions; amendments to HIPAA under HITECH, which strengthened and expanded HIPAA privacy and security compliance requirements, increased penalties for violators, extended enforcement authority to state attorneys general and imposed requirements for breach notification;
- state laws regulating genetic testing and protecting the privacy of genetic test results, as well as state laws protecting the privacy and security of health information and personal data and mandating reporting of breaches to affected individuals and state regulators;

- the federal Anti-Kickback Statute, which prohibits knowingly and willfully offering, paying, soliciting, or receiving remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual, or the furnishing, arranging for, or recommending of an item or service that is reimbursable, in whole or in part, by a federal health care program;
- the Eliminating Kickbacks in Recovery Act, which is an all-payor anti-kickback law that makes it a criminal offense to pay any remuneration to induce referrals to, or in exchange for, patients using the services of a recovery home, a substance use clinical treatment facility, or laboratory;
- the federal False Claims Act, which imposes liability on any person or entity that, among other things, knowingly presents, or causes to be presented, a false or fraudulent claim for payment to the federal government;
- the CMP Law, which prohibits, among other things, the offering or transfer of remuneration to a Medicare or Medicaid beneficiary if the person knows or should know it is likely to influence the beneficiary's selection of a particular provider, practitioner, or supplier of services reimbursable by Medicare or Medicaid, unless an exception applies;
- other federal and state fraud and abuse laws, such as anti-kickback laws, prohibitions on self-referral, and false claims acts, which may extend to services reimbursable by any commercial payor, including private insurers;
- PAMA, which requires applicable laboratories to report commercial payor data in a timely and accurate manner every three years (and in some cases annually);
- state laws that impose reporting and other compliance-related requirements; and
- similar foreign laws and regulations that apply to us in the countries in which we operate.

As a clinical laboratory, our business practices may face heightened scrutiny from government enforcement agencies such as the Department of Justice, the OIG and CMS. The OIG has issued fraud alerts in recent years that identify certain arrangements between clinical laboratories and referring physicians as implicating the Anti-Kickback Statute. The OIG has stated that it is particularly concerned about these types of arrangements because the choice of laboratory, as well as the decision to order laboratory tests, typically are made or strongly influenced by the physician, with little or no input from the patient. Moreover, the provision of payments or other items of value by a clinical laboratory to a referral source could be prohibited under the federal self-referral prohibition, commonly known as the Stark Law or the Physician Self-Referral Law, unless the arrangement meets all criteria of an applicable exception. The government has actively enforced these laws against clinical laboratories in recent years.

These laws and regulations are complex and are subject to interpretation by the courts and by government agencies. Our failure to comply could lead to significant civil or criminal penalties, exclusion from participation in state and federal health care programs, individual imprisonment, disgorgement of profits, contractual damages, reputational harm, diminished profits and future earnings, additional reporting or oversight obligations if we become subject to a corporate integrity agreement or other agreement to resolve allegations of non-compliance with the law, curtailment or restructuring of our operations, or prohibitions or restrictions on our laboratories' ability to provide or receive payment for our services, any of which could adversely affect our ability to operate our business and pursue our strategy. We believe that we are in material compliance with all statutory and regulatory requirements, but there is a risk that one or more government agencies could take a contrary position, or that a private party could file suit under the qui tam provisions of the federal False Claims Act or a similar state law. Such occurrences, regardless of their outcome, could damage our reputation and adversely affect important business relationships with third parties, including managed care organizations, and other private commercial payors.

The growth of our business may increase the potential of violating similar foreign laws or our internal policies and procedures. The risk of us being found in violation of these or other laws and regulations is further increased by the fact that many have not been fully interpreted by the regulatory authorities or the courts, and their provisions are open to a variety of interpretations. Any action brought against us for violation of these or other laws or regulations, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. Any of the foregoing consequences could seriously harm our business and our financial results.

We may fail to comply with evolving European and other privacy laws.

On May 25, 2018, Regulation (EU) 2016/679 of the European Parliament and of the Council of April 27, 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (the "GDPR") went into effect, and the UK GDPR became effective in January 2021. In the United Kingdom, the GDPR has been implemented into United Kingdom domestic law, pursuant to the Data Protection, Privacy and Electronic Communications (Amendments etc.) (EU Exit) Regulations 2019 (as amended), which makes some minor technical amendments to ensure the GDPR is operable in the United Kingdom, or the UK GDPR. The UK GDPR is also supplemented by the Data Protection Act 2018. United Kingdom and European Union data protection law is therefore aligned. The GDPR and the UK GDPR impose a broad range of strict requirements on companies subject to the GDPR and the UK GDPR, such as us, and their processors, including requirements relating to having legal bases for processing personal data relating to identifiable individuals and transferring such information outside the European Economic Area (the "EEA") or the UK, including to the United States, In addition, examples of obligations imposed by the GDPR on companies processing personal data that fall within the scope of the GDPR include (i) accountability and transparency requirements, (ii) lawfulness requirements, (iii) adhering to the principles of 'privacy by design and by default' when developing new products or services; (iv) complying with data minimization obligations; (v) obligations in relation to the rights of data subjects; (vi) reporting of personal data breaches to the supervisory authority without undue delay (and no later than 72 hours) and reporting to data subjects; (vii) under certain conditions, appointing a data protection officer; and (viii) taking certain measures when engaging third-party processors. The GDPR and the UK GDPR increase substantially the penalties to which we could be subject in the event of any non-compliance, including fines of up to the higher of 10,000,000 euros and 2% of our total worldwide annual turnover for the preceding financial year for certain comparatively minor offenses, or up to the higher of 20,000,000 euros and 4% of our total worldwide annual turnover for the preceding financial year under the GDPR, or 17,500,000 GBP and 4% of our total worldwide annual turnover under the UK GDPR, for more serious offenses. Given the new law, we face uncertainty as to the exact interpretation of the new requirements and we may be unsuccessful in implementing all measures required by data protection authorities or courts in interpretation of the new law.

National laws of member states of the European Union may partially deviate from the GDPR and impose different obligations from country to country. Therefore, we may not operate in a uniform legal landscape in the European Union. Also, in the field of handling genetic and health data, the GDPR specifically allows national laws to impose additional and more specific requirements or restrictions, and European laws have historically differed quite substantially in this field, leading to additional uncertainty. Following Brexit, we are also required to comply with the UK GDPR. The free movement of data between the United Kingdom and the Member States of the European Union is ensured by an Adequacy Decision by the European Commission pursuant to Art. 45 GDPR. However, there are efforts to change data protection law in the United Kingdom. In this context, there is uncertainty as to whether an adequate level of data protection can continue to be maintained, including the free movement of data between the United Kingdom and the European Union. These changes could lead to additional compliance costs and could increase our overall risk.

We must also ensure that we maintain adequate safeguards to enable the transfer of personal data outside of the EEA and the UK, in particular to the United States, in compliance with European and UK data protection laws. The GDPR prohibits the international transfer of personal data from the EEA to countries outside of the EEA unless made to a country deemed to have adequate data privacy laws by the European Commission or where an accurate data transfer mechanism has been put in place. In this regard, the July 2020 ruling by the Court of Justice of the EU (the "CJEU") in the case referred to as Schrems II is significant. The CJEU held that businesses can use European Commission endorsed standard contractual clauses ("SCCs"), which are widely relied on, for data transfers to jurisdictions outside of the EEA. However, it emphasized the need for due diligence by businesses if they wish to use SCCs and called into question whether businesses can use SCCs to facilitate data transfers to certain jurisdictions with invasive surveillance regimes in a way which complies with the GDPR and the UK GDPR. This is also true for the new set of SCCs adopted by the European Commission in 2021. The CJEU also invalidated the EU-US Privacy Shield for transferring personal data from the EEA to the US. Under Clause 14 of the new SCC, data exporters must conduct a "data transfer impact assessment" ("DTIA") to ensure that the data importer can actually contractually guarantee adequate data protection standards under the SCC. Such DTIA are both costly and time consuming. In addition, there is great uncertainty about how the DTIA is to be carried out in individual cases and how the national regulations in the country of the data importer are to be considered. However, on July 10, 2023, the European Commission adopted an adequacy decision for a new mechanism for transferring data from the European Union to the United States – the E.U.-U.S. Data Privacy Framework, which provides E.U. individuals with several new rights, including the right to obtain access to their data, or obtain correction or deletion of incorrect or unlawfully handled data, and allows U.S. companies to self-certify to the U.S. Department of Commerce their compliance with a set of agreed privacy principles in order to freely receive E.U. personal data, without having to put in place additional data protection safeguards. The adequacy decision followed the signing of an executive order in the U.S. introducing new binding safeguards to address the points raised in the Schrems II judgment. Notably, the new obligations were geared to ensure that data can be accessed by U.S. intelligence agencies only to the extent necessary and proportionate and to

establish an independent and impartial redress mechanism to handle complaints from Europeans concerning the collection of their data for national security purposes. The UK-US Data Bridge (the UK extension to the Data Privacy Framework) came into force shortly after the E.U. – U.S. Data Privacy Framework and provides UK individuals with similar rights. Organizations that have not certified under the under the E.U. – U.S. Data Privacy Framework (or the UK-US Data Bridge) may utilize another data transfer mechanism, such as the EU Commission approved Standard Contractual Clauses, or the UK equivalent, respectively. The European Commission and the UK government will continually review developments in the United States along with their adequacy decisions. Consequently, there is some risk of any data transfers from the EU and UK being halted, and the risk that data transfer mechanisms may be challenged which may lead to its invalidation. In addition, in June of 2021, the European Commission issued a decision, which will sunset on June 27, 2025 without further action, that the United Kingdom ensures an adequate level of protection for personal data transferred under the E.U. GDPR from the E.U. to the United Kingdom. Adequacy decisions can be adapted or even withdrawn in the event of developments affecting the level of protection in the applicable jurisdiction.

We expect that we will continue to face uncertainty as to whether our efforts to comply with our obligations under European privacy laws will be sufficient. If we are investigated by a European data protection authority, we may face fines and other penalties. Any such investigation or charges by European data protection authorities could have a negative effect on our existing business and on our ability to attract and retain new clients or pharmaceutical partners. We may also experience hesitancy, reluctance, or refusal by European or multinational clients or pharmaceutical partners to continue to use our products and solutions due to the potential risk exposure as a result of the current (and, in particular, future) data protection obligations imposed on them by certain data protection authorities in interpretation of current law, including the GDPR and the UK GDPR. Such clients or pharmaceutical partners may also view any alternative approaches to compliance as being too costly, too burdensome, too legally uncertain, or otherwise objectionable and therefore decide not to do business with us. Any of the foregoing could materially harm our business, prospects, financial condition and results of operations.

In addition, various U.S. states have enacted privacy and security laws and regulations, and such laws and regulations vary from state to state, constantly evolve, and remain subject to significant change. In some cases, such laws and regulations can impose more restrictive requirements than HIPAA and other U.S. federal laws, thus complicating compliance efforts. By way of example, California has enacted the California Consumer Privacy Act, or CCPA, which went into effect in January of 2020. The CCPA established a new privacy framework for covered businesses by creating an expanded definition of personal information, establishing new data privacy rights for California residents, requiring covered business to provide new disclosures to California residents, and creating a new and potentially severe statutory damages framework for violations of the CCPA and for businesses that fail to implement reasonable security procedures and practices to prevent data breaches. Additionally in 2020, California voters passed the California Privacy Rights Act, or CPRA, which went into full effect on January 1, 2023. The CPRA significantly amends the CCPA, potentially resulting in further uncertainty, additional costs and expenses in an effort to comply and additional potential for harm and liability for failure to comply. Among other things, the CPRA established a new regulatory authority, the California Privacy Protection Agency, which is tasked with enacting new regulations under the CPRA and will have expanded enforcement authority. In addition to California, more U.S. states are enacting similar legislation, increasing compliance complexity, and increasing risks of failures to comply. In 2023, comprehensive privacy laws in Virginia, Colorado, Connecticut, and Utah all took effect, and laws in Montana, Oregon, and Texas will take effect in 2024. In addition, laws in other U.S. states are set to take effect beyond 2024, and additional U.S. states have proposals under consideration, all of which are likely to increase our regulatory compliance costs and risks, exposure to regulatory enforcement action and other liabilities. While these state privacy laws, like the CCPA, also exempt some data processed in the context of clinical trials (and most also exempt employee and business personal data), these developments further complicate compliance efforts, and increase legal risk and compliance costs for us and the third parties upon whom we rely. The scope and enforcement of these laws is uncertain and subject to rapid change. For example, increasing concerns about health information privacy have recently prompted the federal government to take a newly expansive view of the scope of existing privacy laws and regulations. Congress and some states are considering (and in some cases have passed) new laws and regulations that further and more broadly protect the privacy and security of personal health information.

The interplay of federal and state laws may be subject to varying interpretations by courts and government agencies, creating complex compliance issues for us and our clients and potentially exposing us to additional expense, adverse publicity, and liability. Further, as regulatory focus on privacy issues continues to increase and laws and regulations concerning the protection of personal information expand and become more complex, these potential risks to our business could intensify.

We could be adversely affected by violations of worldwide anti-bribery laws, including the U.S. Foreign Corrupt Practices Act.

We are subject to a variety of anti-bribery and anti-corruption laws in the jurisdictions in which we operate. In particular, we are subject to Germany's Anti-Bribery Act of 2015 (*Gesetz zur Bekämpfung der Korruption im Gesundheitswesen*), which implements

EU anti-corruption laws and the European legislation and the Criminal Law Convention on Corruption of the Council of Europe into German law, and the FCPA, which prohibits companies and their intermediaries from making payments in violation of law to non-United States government officials for the purpose of obtaining or retaining business or securing any other improper advantage. We are also subject to similar anti-bribery laws in the jurisdictions in which we operate, including the United Kingdom's Bribery Act of 2010, which prohibits commercial bribery and makes it a crime for companies to fail to prevent bribery.

We use third-party collaborators, strategic partners, law firms and other representatives for patent registration and other purposes in a variety of countries, including those that are known to present a high corruption risk. We also use third-party distributors worldwide as part of our diagnostics business. Our reliance on third parties to sell our products and solutions internationally demands a high degree of vigilance because we can be held liable for the corrupt or other illegal activities of these third-party collaborators, or their or our employees, representatives, contractors, partners, and agents, even if we do not explicitly authorize such activities. In addition, although we have implemented policies and procedures to ensure compliance with anti-corruption and related laws and maintain a code of conduct, there can be no assurance that all of our employees, representatives, contractors, partners, or agents will comply with these laws at all times. Other United States companies in the medical device and pharmaceutical fields have faced criminal penalties under the FCPA for allowing their agents to deviate from appropriate practices in doing business with these individuals.

These laws are complex and far-reaching in nature, and, as a result, we cannot assure you that we would not be required in the future to alter one or more of our practices to be in compliance with these laws, any changes in these laws, or the interpretation thereof. Non-compliance with these and other relevant laws could subject us to whistleblower complaints, investigations, sanctions, settlements, prosecution, other enforcement actions, disgorgement of profits, significant fines, damages, other civil and criminal penalties or injunctions, suspension and debarment from contracting with certain governments or other persons, the loss of export privileges, reputational harm, adverse media coverage, and other collateral consequences. If any subpoenas or investigations are launched, or governmental or other sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation, our business, results of operations, and financial condition could be materially harmed. In addition, responding to any action will likely result in a materially significant diversion of management's attention and resources and significant defense costs and other professional fees. Enforcement actions and sanctions could further harm our business, results of operations, and financial condition.

We may fail to adhere to regulations of promotional claims and activities regarding our products and solutions.

Once a patient has been identified and diagnosed through our diagnostics testing, we provide each patient's physician with a diagnostic report. If a positive diagnosis is confirmed, we provide the physician with information on relevant treatment options, although the physician is responsible for ultimately making clinically relevant decisions for the treatment of his or her patient.

In the United States, the FDA and other regulatory agencies strictly regulate the promotional claims that may be made about prescription drugs and devices. In particular, a device may not be promoted for uses or indications beyond those contained in the device's approved labeling, or "off-label" uses. Similar laws and regulations exist in other jurisdictions where we promote our products. If the FDA determines that we have promoted our products for off-label use, it could request that we modify those promotional materials or take regulatory or enforcement actions, including the issuance of an untitled letter, warning letter, injunction, seizure, civil fine and criminal penalties. It is also possible that other federal, state or foreign enforcement authorities may take action if they consider our promotional or training materials to constitute promotion of an unapproved use. If not successfully defended, enforcement actions related to off-label promotion could result in significant fines or penalties. The U.S. government has levied large civil and criminal fines against companies for alleged improper promotion and has entered into corporate integrity agreements and deferred prosecution agreements with companies that engaged in off-label promotion. The FDA has also requested that such companies enter into consent decrees and has taken other enforcement action. If the DOJ or FDA determines that we have engaged in off-label promotion in our test reports, we may be subject to civil or criminal fines. Although our policy is to refrain from statements that could be considered off-label promotion of third parties, the regulatory standards regarding off-label promotion are ambiguous, and the FDA or another regulatory agency could conclude that we have engaged in off-label promotion.

In addition to promoting our devices in a manner consistent with their approved indications, we must have adequate substantiation for the claims we make for our products or solutions. If any of our claims are determined to be false, misleading or deceptive, our products or solutions could be considered to be misbranded under the Federal Food, Drug, and Cosmetic Act (the "FDC Act") or to violate the Federal Trade Commission Act. We could also face lawsuits from our competitors under the Lanham Act, alleging that our marketing materials are false or misleading. Such lawsuits, whether with or without merit, are typically time-consuming, costly to defend, and could harm our reputation.

Federal and state legislation regulate interactions between medical device manufacturers and healthcare professionals. We are subject to federal and state laws targeting fraud and abuse in healthcare, including anti-kickback laws, false claims laws, and other laws constraining or otherwise related to financial arrangements manufacturers may enter into with healthcare professionals. For example, the Physician Payments Sunshine Act requires device manufacturers to report and disclose payments or other transfers of value made to physicians and teaching hospitals. Violations of these laws can result in criminal or civil sanctions, including fines, imprisonment, and exclusion from government reimbursement programs, all of which could materially harm our business.

In addition, incentives exist under applicable laws that encourage competitors, employees, and physicians to report violations of law governing promotional activities for pharmaceutical products and solutions. These incentives could lead to so-called whistleblower lawsuits as part of which such persons seek to collect a portion of monies allegedly overbilled to government agencies due to, for example, promotion of pharmaceutical products and solutions beyond labeled claims. These incentives could also lead to lawsuits that claim we have mischaracterized a competitor's service in the marketplace and, as a result, we could be sued for alleged damages to our competitors. Such lawsuits, whether with or without merit, are typically time-consuming and costly to defend. Such lawsuits may also result in related shareholder lawsuits, which may also be costly to defend.

Changes in the way that the FDA and the European Union regulate laboratory developed tests, manufactured, validated, and performed by laboratories like ours could result in additional expense in offering our current and any future products and solutions or even possibly delay or suspend development, manufacture, or commercialization of such products and solutions.

The FDA does not currently regulate most laboratory developed tests ("LDTs"). We believe that the tests we currently offer meet the definition of LDTs, as they have been designed, developed and validated for use in a single CLIA-certified laboratory. If our tests are qualified as LDTs, they are currently subject to FDA enforcement discretion, meaning that the agency will not actively pursue enforcement action of such tests under the medical device regulations. Since the early 1990s, the FDA has taken the position that, although LDTs are medical devices, it would exercise enforcement discretion by not requiring compliance with the FDC Act, or its regulations for LDTs. However, in October 2023, the FDA issued a proposed rule aimed at regulating LDTs under the current medical device framework and proposing to phase out its existing enforcement discretion policy for this category of diagnostic tests. The agency's proposal envisions that the LDT enforcement policy phase-out process would occur in gradual stages over a total period of four years, with premarket approval applications for high-risk tests to be submitted by the 3.5-year mark, although more details are expected to be provided with the upcoming final rule. The FDA plans to finalize the LDT rule in April 2024, but it is likely to face litigation challenging the agency's authority to take such action. Affected stakeholders continue to press for a comprehensive legislative solution to create a harmonized paradigm for oversight of LDTs by both the FDA and CMS, instead of implementation of the proposed FDA administrative action, which may be disruptive to the industry and to patient access to certain diagnostic tests.

Separately, members of Congress have been working for the past several years on legislation to create an LDT and IVD regulatory framework that would be separate and distinct from the existing medical device regulatory framework. For example, as drafted and re-introduced for consideration by the current Congress, the Verifying Accurate, Leading-edge IVCT Development Act, or VALID Act, would codify into law the term "in vitro clinical test," to create a new medical product category separate from medical device that includes all products currently regulated as IVDs as well as LDTs. The VALID Act would also create a new system for labs and hospitals to use to submit their tests electronically to the FDA for approval, which is aimed at reducing the amount of time it takes for the agency to approve such tests, and to establish a new program to expedite the development of diagnostic tests that can be used to address a current unmet need for patients.

Whether as a result of new legislative authority or following formal notice-and-comment rulemaking, if the FDA begins to enforce new regulatory requirements for LDTs, or if the FDA disagrees with our assessment that our IVD products are LDTs, our tests could for the first time be subject to a variety of regulatory requirements, including registration and listing, medical device reporting and quality control. We also could be required to obtain premarket clearance or approval for our existing test and any new tests we are developing or may develop, which may force us to cease marketing such products until we obtain the required clearance or approval. If we are required to obtain premarket clearance or approval and/or conduct premarket clinical trials, our development costs could significantly increase, our introduction of any new tests we may develop may be delayed, and sales of our existing test could be interrupted or stopped. If the FDA requires any form of premarket review, our tests may not be cleared or approved on a timely basis, or at all. Any of these outcomes could reduce our revenue or increase our costs and materially adversely affect our business, prospects, results of operations, or financial condition. Moreover, any cleared or approved labeling claims may not be consistent with our current claims or adequate to support continued adoption of and reimbursement for our tests.

Additionally, should future regulatory actions affect any of the reagents we obtain from suppliers and use to perform our commercial tests, our business could be adversely affected in the form of increased costs of testing or delays, limits, or prohibitions on

the purchase of necessary reagents. While we qualify all materials used in our products in accordance with the regulations and guidelines of CLIA, the FDA could promulgate regulations or issue guidance for industry that may impact our ability to purchase materials necessary for the performance of our tests. If any of the reagents we obtain from suppliers and use are affected by future regulatory actions, our business could be adversely affected, including by increasing the cost of testing or delaying, limiting, or prohibiting the purchase of reagents necessary to perform testing with our products.

Failure to comply with any applicable FDA requirements could trigger a range of enforcement actions by the FDA, including but not limited to warning letters, civil monetary penalties, injunctions, criminal prosecution, recall or seizure, operating restrictions, partial suspension or total shutdown of operations and denial of or challenges to applications for clearance or approval, as well as significant adverse publicity.

In addition, in November 2013, the FDA finalized guidance regarding the sale and use of products labeled for research or investigational use only. Among other things, the guidance states that the FDA continues to be concerned about distribution of research- or investigational-use only products intended for clinical diagnostic use. The guidance states that the FDA will assess whether a manufacturer of such research- or investigational-use only products intends that its products be used for clinical diagnostic purposes by examining the totality of circumstances, including advertising, instructions for clinical interpretation, presentations that describe clinical use, and specialized technical support such as assistance performing clinical validation, surrounding the distribution of the product in question. The FDA has advised that if evidence demonstrates that a product is inappropriately labeled for research- or investigational-use only, the device could be deemed misbranded and adulterated within the meaning of the FDC Act. If the FDA were to undertake enforcement actions, some of our suppliers may cease selling research-use only ("RUO") products to us, and any failure to obtain an acceptable substitute could significantly and adversely affect our business, financial condition and results of operations.

In the European Union LDTs are similarly exempt from certain regulations that govern medical devices and IVD under certain conditions. As of May 26, 2022, when the new IVDR became applicable, the general safety and performance requirements set out in Annex I of the IVDR are applicable also to IVD manufactured and used only within health institutions. Overall, the exemptions for LDTs are narrowed, as even in relation to LDTs, health institutions, among others, have to provide information upon request on the use of such devices to their competent authority and each health institution will have to draw up a declaration, which it will make publicly available. If these conditions are not met and/or diagnostic tests are manufactured and used only within health institutions but "on an industrial scale", or if the health institution cannot justify in its documentation that the target patient group's specific needs cannot be met (including at the appropriate level of performance) by an equivalent device already available on the market, from May 26, 2028, such tests will qualify as IVDs with the full applicability of the IVDR. If we were not able to qualify for an exemption, we would be subject to all legal requirements of the IVDR. We also cannot predict whether the EU will amend or implement new laws which may impact our current operations.

For tests that are subject to FDA or EU regulation, we may not be able to obtain timely approvals for our tests or for modifications to our tests, which could delay or prevent us from commercializing our tests and harm our business.

The diagnostic tests we currently offer might meet the definition of LDTs, as they have been designed, developed and validated for use in a single CLIA-certified laboratory. If our tests are LDTs, they are currently subject to FDA enforcement. As of 2022, when the new IVDR came into force in the European Union, a qualification of our diagnostic tests as IVD becomes more likely as the manufacturing of diagnostic tests "on an industrial scale" might not qualify as LDTs. The IVDR itself does not provide for a definition of the term "industrial scale". According to the guidance document MDCG-2023-01 published by the Medical Devices Coordination Group ("MDCG"), this new concept for LDTs involves many factors to be considered on a case-by-case basis, including e.g., volume of production, commercial aspects and manufacturing process. Moreover, the facilitations applicable to LDT as laid down in Art. 5 IVDR should only be applicable to devices that are produced by a health institution in order to meet the patient group's specific needs, and therefore, no more than the estimated number of required devices should be produced. If the FDA takes action to finalize and implement a regulatory system for LDTs, or if legislation is enacted that subjects LDTs to FDA regulation, we would need to comply with the FDA regulatory requirements for our LDTs. If the FDA takes action to regulate LDTs as devices, we believe that our LDTs would likely be regulated as Class II devices.

In the EU, genetic or other tests on humans and prenatal tests for genetically caused disorders are regulated as Class C devices under the IVD Regulation. If our LDTs are subject to the IVD Regulation, our tests that qualify as Class C devices will be subject to conformity assessments performed by a notified body.

If services that are currently marketed as LDTs become subject to FDA requirements for in-vitro-diagnostics or are qualified as being subject to the European Union regulations on in vitro diagnostic medical devices, including requirements for premarket

clearance or approval, we may not be able to obtain such clearance or approvals on a timely basis, or at all. Our business could be negatively impacted if we are required to stop selling genetic rare disease knowledge and interpretation-based products and solutions pending their clearance or approval, or the launch of any new products and solutions that we develop could be delayed. Likewise, for tests that are regulated as medical devices, we may not be able to obtain clearance or approval of new devices or modifications to marketed devices on a timely basis, or at all, which could delay or prevent us from commercializing our tests and harm our business.

Class II medical devices must obtain FDA clearance of a premarket notification, or 510(k) clearance, prior to marketing, unless the FDA has exempted the device from this requirement. Under the 510(k) process, we must demonstrate that our test is substantially equivalent in technological characteristics and intended use to a legally marketed predicate device. The FDA's review and clearance of a 510(k) usually takes from three to twelve months, but it can take longer. Any modifications to an FDA-cleared device that could significantly affect its safety or effectiveness or that would constitute a major change in its intended use would require a new 510(k) clearance or, if the modified device is not substantially equivalent, possibly a de novo classification request or a premarket approval ("PMA") application.

If we are unable to identify an appropriate predicate that is substantially equivalent to our device, we would be required to submit a PMA application or a De Novo classification request, because devices that have not been classified are automatically categorized as Class III. Under the De Novo classification process, we may request that the FDA classify a new low or moderate risk device that lacks an appropriate predicate as a Class I or Class II device. The De Novo classification process typically requires the development of clinical data and usually takes between six to twelve months from the time of submission of the required application, but it can take longer.

For tests that are subject to FDA or EU regulation, if we do not comply with FDA or EMA regulatory requirements, we may be subject to enforcement action, with severe consequences for our business.

After approval, devices subject to FDA or EMA regulation are required to comply with post-market requirements. Among the requirements, we and our suppliers must comply with the FDA's Quality System Regulations ("QSRs"), which set forth requirements for the design and manufacture of devices, including the methods and documentation for the design, control testing, quality assurance, labeling, packaging, storage, and shipping of our devices. Our limited experience in complying with these requirements may lead to operational challenges as we increase the scale of our QSR-compliant operations in the United States and develop and refine our policies and procedures for evaluating and mitigating issues we encounter with our processes. Further, if there are any modifications made to the manufacturing of our PMA-approved marketed solutions, a PMA supplement may be required to be submitted to, and approved by, the FDA before the modified device may be marketed.

Other post-market requirements include the reporting of adverse events and malfunctions of which we become aware within the prescribed time frame to the FDA, post-approval studies, establishment registration and device listing, and restrictions on advertising and promotion. We may fail to meet these requirements, which could subject our business to further regulatory risks and costs.

The FDA enforces the post-market requirements of the FDC Act through announced and unannounced inspections. Failure to comply with applicable regulatory requirements could require us to expend time and resources to respond to the FDA's observations and to implement corrective and preventive actions, as appropriate. If we cannot resolve such issues to the satisfaction of the FDA, we may be subject to enforcement actions, including untitled or warning letters, fines, injunctions, or civil or criminal penalties. In addition, we could be subject to a recall or seizure of current or future solutions, operating restrictions, a partial suspension, or a total shutdown of service. Any such enforcement action would have a material adverse effect on our business, financial condition, and results of operations.

We face inspections, reviews, audits and investigations under federal and state government programs and contracts and health insurance providers regarding our billing practices.

We may be subject to inspections, reviews, audits and investigations regarding our billing practices to verify our compliance with federal and state government program requirements and contracts and applicable laws and regulations. Other third-party payors, including private health insurance providers, may also reserve the right to conduct audits. An adverse result of an inspection, review, audit or investigation could result in:

- denial of claims or recoupment or refunding of amounts from other payors;

- state or federal agencies imposing fines, penalties or other sanctions on us, including under the federal U.S. False Claims Act;
- temporary suspension of payments;
- revocation of billing privileges or exclusion from participation in programs or one or more payor networks;
- self-disclosure of violations to applicable regulatory authorities;
- damage to our reputation;
- criminal penalties;
- revision or restatements of historical financial statements, including derecognition of revenue for claims we were not entitled to; and
- loss of certain rights under, or termination of, our contracts with payors.

We have in the past and may in the future be required to refund amounts we have been paid and/or pay fines and penalties as a result of these inspections, reviews, audits and investigations, in particular if our documentation, billing and other practices do not comply with applicable government program or other payor requirements.

We responded to an asserted overpayment following an audit of claims for diagnostic tests that was submitted to the U.S. government Medicare program previously recognized. In addition, we refunded payments received from a private health insurance company relating to reimbursement claims submitted for COVID-19 testing services between November 2020 and November 2021 and recognized in 2021. We recognized in our consolidated financial statements as of December 31, 2022, EUR 1,060 thousand of other liabilities to be refunded back to Medicare for overpayments made between 2019 and 2022.

Intellectual Property Risks Related to Our Business

If we are unable to obtain and maintain patent and other intellectual property protection for any products or solutions we develop and for our technology, or if the scope of intellectual property protection obtained is not sufficient, our competitors could develop and commercialize products and solutions similar or identical to ours, and our ability to successfully commercialize any products or solutions we may develop may be adversely affected.

Our success depends on our ability to obtain and maintain patent and other intellectual property protection in the United States and other countries for our biomarkers and other products and solutions. Patent law relating to the scope of claims in the fields in which we operate is complex and uncertain, so we cannot make any assurances that we will be able to obtain or maintain patent or other intellectual property rights, or that the patent and other intellectual property rights we may obtain will be valuable, provide an effective barrier to competitors or otherwise provide competitive advantages. In particular, our Lyso-Gb3 biomarker, which we use to support the diagnosis of Fabry disease, is not protected by any patents or included in any pending patent applications, and its successful commercialization by one of our competitors or by other third parties, which, in all probability, we would not be able to prevent, could materially harm our business or results of operations. Moreover, patent applications that we have made in the past have been subject to comment and revision by the relevant patent offices, which have resulted in our withdrawal of certain patent applications. If we are unable to obtain or maintain patent or other intellectual property protection with respect to our proprietary products and solutions, our business, financial condition, results of operations, and prospects could be materially harmed.

The scope of patent protection is uncertain. Changes in either the patent laws or their interpretation in the United States and other countries may diminish our ability to protect our inventions, obtain, maintain, and enforce our intellectual property rights and, more generally, could affect the value of our intellectual property or narrow the scope of our patents. We cannot predict whether the patent applications we are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient protection from competitors.

The patent prosecution process is expensive, time-consuming, and complex, and we may not be able to file, prosecute, maintain, enforce, or license all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output in time to obtain patent protection. Parties who have access to confidential or patentable aspects of our research and development output, such as our management and employees, advisors, and other third parties, and who are subject to non-disclosure and confidentiality agreements with us, may breach such agreements and disclose such output before a patent application is filed, thereby jeopardizing our ability to seek patent protection, or might themselves file respective IP rights. In addition, publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot be certain that we were the first to make the inventions claimed in our patents or pending patent applications, or that we were the first to file for patent protection of such inventions.

The patent position of companies in our industry generally is unsettled, involves complex legal and factual questions, and has been the subject of much litigation in recent years. As a result, the issuance, scope, validity, enforceability, and commercial value of our patent rights are highly uncertain. Our pending and future patent applications may not result in patents being issued that protect our products or solutions or which effectively prevent others from commercializing competitive products and solutions.

Moreover, the coverage claimed in a patent application can be significantly reduced before the patent is issued, and its scope can be reinterpreted after issuance. Even if patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors or other third parties from competing with us, or otherwise provide us with any competitive advantage. Any patents that we hold may be challenged, narrowed, circumvented, or invalidated by third parties. In particular, for more information regarding U.S. patent law decisions that negatively impact the patentability of biomarkers, diagnostic products and diagnostic methods, and the validity of granted U.S. patents covering such subject matter, see "—Developments in patent law could have a negative impact on our business" below. Consequently, we do not know whether any of our biomarkers or other products and solutions will be protectable or remain protected by valid and enforceable patents. Our competitors or other third parties may be able to circumvent our patents by developing similar or alternative products and solutions in a non-infringing manner. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations, and prospects.

If we are unable to protect the confidentiality of our trade secrets, know-how, and other confidential and proprietary information, our business and competitive position would be harmed.

In addition to seeking patent protection for our products and solutions, we also rely upon trade secret protection and non-disclosure agreements and invention assignment agreements with our management and employees, consultants and other third parties to protect our unpatented know-how, technology, and other confidential or proprietary information. For example, significant elements of our proprietary platform and some of our tests, including aspects of sample preparation, computational-biological algorithms, and related processes and software, are based on unpatented trade secrets and know-how that to our knowledge are not publicly disclosed. In addition to contractual measures, we try to protect the confidential nature of our proprietary information using physical and technological security measures. Such measures may not provide adequate protection for our proprietary information; for example, in the case of misappropriation of intellectual rights by a member of management, an employee, consultant, or other third party with authorized access. We also cannot rule out the possibility that third parties specifically try to obtain our know-how, trade secrets or other confidential and proprietary information.

Trade secrets and know-how can be difficult to protect. We cannot guarantee that we have entered into applicable non-disclosure agreements and invention assignment agreements with our management and employees, consultants and other third parties who have had access to our trade secrets or other proprietary information. Our security and contractual measures may not prevent a member of management, an employee, consultant, or other third party from misappropriating our trade secrets and providing them to a competitor, other third parties or to the public, and any recourse we take against such misconduct, including litigation, may not provide an adequate remedy to protect our interests fully. Enforcing a claim that a party illegally disclosed or misappropriated intellectual property can be difficult, expensive, and time-consuming, and the outcome is unpredictable. Due to variations in the degree of protection afforded to intellectual property of this nature under the laws and regulations applicable to different international markets where our services are sold, our ability to pursue and obtain an adequate remedy may depend significantly on the jurisdiction in which the misconduct takes place and our ability to enforce a favorable judgment against the offending party in a jurisdiction in which such party has substantial assets. In addition, trade secrets may be independently developed by others in a manner that could prevent legal recourse by us. If any of our confidential or proprietary information, such as our trade secrets, were to be disclosed or misappropriated, or if any such information were independently developed by a competitor, our competitive position could be harmed.

Patents covering our products or solutions could be found invalid or unenforceable if challenged

The issuance of a patent is not conclusive as to its inventorship, scope, validity, or enforceability, and our patents may be challenged in the courts or patent offices in the United States and abroad. Others have filed, and in the future are likely to file, patent applications or related intellectual property rights that are similar or identical to ours. To determine the priority of inventions, demonstrate that we did not derive our invention from another individual or entity, or defend third party challenges or reservations of the granting authorities to the validity or enforceability of our patent rights, we may have to participate in opposition, derivation, revocation, reexamination, entitlement, post grant and inter partes review ("IPR"), or interference proceedings at the U.S. Patent and Trademark Office (the "USPTO") or similar offices or respective courts in Europe or other jurisdictions. For example, we are aware of an opposition proceeding filed at the European Patent Office ("EPO") by Sanofi against EP Patent No. 2 718 725 B1 (the "725 Patent"), a European patent that we (i.e. Centogene GmbH) own relating to our biomarker for Gaucher disease. The EPO opposition proceeding challenges the patentability of the '725 Patent in its entirety. The EPO rejected the opposition in the first instance in the hearing held on February 4, 2020. Sanofi filed an appeal against the opposition decision to the Board of Appeal at the EPO.. The Board of Appeal of the EPO revoked the patent on September 26, 2023. This decision can no longer be appealed and is therefore final. There are no further legal remedies available. The invalidation of the European patent will presumably not or only marginally harm our current business. We are also aware of an opposition proceeding filed at the European Patent Office ("EPO") by Sanofi against EP Patent No. 3 318 881 B1 (the "'881 Patent") on April 15, 2021, another European patent that we (i.e. Centogene GmbH) own relating to our biomarker for Gaucher disease. The EPO opposition proceeding challenges the patentability of the '881 Patent in its entirety. Oral proceedings concerning the European patent took place before the opposition division of the EPO on May 04, 2022. The '881 Patent was maintained in limited form. We and Sanofi appealed the opposition decision. While we claim in our appeal that the opposition decision is reversed and the 881 Patent is maintained based on the set of claims as granted, Sanofi claims that the '881 Patent is revoked in its entirety. The outcome of the appeal is unclear. The Board of Appeal scheduled oral appeal proceedings for November 18, 2024. The '881 Patent may be revoked or maintained in amended, also further limited form, in whole or in part, which could materially harm our business. Revoking or maintaining the '881 Patent in amended form may limit our ability to stop others from using or commercializing similar or identical products and solutions to ours or limit the duration of the patent protection of our products and solutions. Sanofi or other third parties may file future oppositions or other challenges, in Europe or other jurisdictions, against other patents that we own and may also challenge or attack the validity of the national parts of the '725 Patent and/or the '881 Patent before national patent courts in parallel or after the proceedings before the EPO. An adverse determination in any such proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our products or solutions and compete directly with us, without payment to us.

As of June 1, 2023, actions will most likely also be possible before the new European Unified Patent Court. If we do not actively exclude our existing (European patent applications as well as granted) European patents from this system ("opt-out"), they will become part of this new court system and it will be possible for third parties to challenge these patents before the courts of the Unified Patent Court system, with the consequence that these patents can then be restricted or revoked for the territory of all EU Member States participating in the Unitary Patent Court system (at the time of December 31, 2023, these are Austria, Belgium, Bulgaria, Denmark, Estonia, Finland, France, Germany, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovenia and Sweden; other countries may be added in the future, in particular Cyprus, Czech Republic, Greece, Hungary, Ireland, Romania and Slovakia) for which the European patent has effect. The same applies for future European patents and patent applications that are not opted out of the Unified Patent Court system, which is possible for a period of seven years after the date of entry into force of the Agreement on a Unified Patent Court unless an action has already been brought before the Unified Patent Court system in respect of the European patent or patent application. For future European patent applications, it also has to be decided whether a request for unitary effect is submitted with the consequence that the patent if grantable will be granted as Unitary Patent and can therefore be challenged before the Unified Patent Court and be restricted or revoked for the territory of all EU Member States participating in the Unitary Patent Court system.

Moreover, we may have to participate in interference proceedings declared by the USPTO to determine priority of invention or in post grant challenge proceedings, such as oppositions in a foreign patent office or nullity or entitlement proceedings, that challenge priority of invention or other features of patentability. Such challenges may result in loss of patent rights, loss of exclusivity, or in patents being cancelled, narrowed, amended, invalidated, revoked, or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical products and solutions, or limit the duration of the patent protection of our products and solutions. Such proceedings could also result in substantial costs in legal fees and require significant time from our management and employees, even if the eventual outcome is favorable to us. In the event of entitlement proceedings, purported co inventors may bring claims for ownership, co-ownership, compensation and/or damages. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common shares. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations, and prospects.

In addition, if we initiate legal proceedings against a third party to enforce a patent covering our products or solutions, the defendant could counterclaim that such patent is invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, or non enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. In other jurisdictions, defendants have and/or may have comparable grounds for defending against such claims, especially with regard to claims that a patent is invalid. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art of which we and the patent examiner were unaware during prosecution or that a court or office dealing with the invalidity will judge prior art known to us to be detrimental to novelty in a manner deviating from our opinion and/or the opinion of the granting authority, or will consider the invention to be obvious and thus not protectable on the basis of such prior art. Such challenges could result in the revocation of, cancellation of, or amendment to our patents in such a way that they no longer sufficiently cover our products and solutions. If a third party were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our products or solutions. Such a loss of patent protection would materially harm our business, prospects, financial condition and results of operations. Litigation or other proceedings or third-party claims of intellectual property infringement could require us to spend significant time and money and could prevent us from selling our products and solutions and/or impact our share price.

Our commercial success depends upon our ability to develop and commercialize products and solutions and use our proprietary technologies without infringing, misappropriating or otherwise violating the intellectual property and proprietary rights of third parties. We could become party to, or threatened with, adversarial proceedings or litigation regarding intellectual property rights with respect to our technology and any products or solutions we may develop, including interference proceedings, post-grant review, IPR, and derivation proceedings before the USPTO and similar proceedings in foreign jurisdictions, such as oppositions before the EPO or nullity or entitlement proceedings. Third parties may assert infringement and other claims against us based on existing patents or patents that may be granted in the future, regardless of their merit, and we may assert infringement and other claims against third parties. As we continue to commercialize our genetic rare and neurogenerative disease information solutions (including our biomarkers), launch new solutions and enter new markets, we expect that competitors will claim that our products or solutions infringe or otherwise violate their intellectual property rights, including as part of business strategies designed to impede our successful commercialization and entry into new markets. Third parties may have obtained, and may in the future obtain, patents under which such third parties may claim that the use of our technologies constitutes patent infringement. Third parties have in the past asserted and may in the future assert that we are employing their proprietary technology without authorization, and we occasionally receive letters from third parties inviting us to take licenses under, or alleging that we infringe, their patents. Depending upon the circumstances, we may elect to remove a particular biomarker from one of our products or solutions.

Even if we believe that third-party intellectual property claims are without merit, there is no assurance that a court would find in our favor on questions of infringement, validity, enforceability, or priority. A court of competent jurisdiction could hold that these third-party patents are valid, enforceable, and infringed, which could materially and adversely affect our ability to commercialize any products or solutions we may develop or have developed. In order to successfully challenge the validity of any such U.S. patent in federal court or in courts in other jurisdictions, we would need to overcome a presumption of validity. As this burden is a high one, requiring us to present clear and convincing evidence as to the invalidity of any such U.S. patent claim, there is no assurance that a court of competent jurisdiction would invalidate the claims of any such U.S. patent. The same applies to other jurisdictions and patents. Even if we were to find prior art that could justify the invalidation of the intellectual property right under which we are attacked, because of the bifurcated system dealing with infringement and validity before different courts in some jurisdictions (e.g., Germany), we may first be injuncted for infringement of the intellectual property right, which may be corrected only after subsequent invalidation of the intellectual property right. If we are found to infringe a third party's intellectual property rights, and we are unsuccessful in demonstrating that such patents are invalid or unenforceable, we could be required to obtain a license from such third party to continue commercializing our products or solutions. However, we may not be able to obtain any required license on commercially reasonable terms, or at all and therefore may be unable to develop, sell or otherwise commercialize our products or solutions. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors and other third parties access to the same technologies licensed to us, and it could require us to make substantial licensing, royalty, and other payments. Furthermore, parties making claims against us may be able to obtain injunctive or other relief, which could block our ability to develop, commercialize, and sell our products and solutions, and could result in the award of substantial damages against us. In the event of a successful claim of infringement, misappropriation, or other intellectual property violation against us, we may be required to render account for and pay damages and attorneys' fees, recall or destroy stocks and obtain one or more licenses from third parties, or be prohibited from developing, commercializing and selling certain products or solutions. In addition, we could be found liable for significant monetary damages, including treble damages and attorneys' fees, if we are found to have willfully infringed a patent or other intellectual property right.

The new European Unified Patent Court system, which started on June 1, 2023, allows the patent owner to obtain injunctive relief with unitary effect with a single decision of the courts of the Unified Patent Court system, i.e. within all the territories of the EU Member States participating in the Agreement on a Unified Patent Court including e.g. claims for damages, compensation, recall, destruction and information with regard to its Unitary Patents. For European patents not taken out of the Unified Patent Court system by "opt-out" and future European patents for which no request for unitary effect was submitted, decisions of the courts of the Unified Patent Court system cover the territory of the EU Member States participating in the Agreement on a Unified Patent Court for which the European patent has effect. This may result in the loss of significant market opportunities and substantial adverse effects of a judgement.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses and could distract our personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions, or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our shares. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing, or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. We also could incur substantial costs and divert the attention of our management and other employees in participating in litigation or proceedings of this nature, and an adverse ruling or perception of an adverse ruling could have a material adverse impact on our cash position and share price. Any of the foregoing could materially harm our business, prospects, financial condition and results of operations.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment, and other requirements imposed by government patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Obtaining and maintaining a patent portfolio entails significant expense and resources. Part of the expense includes periodic maintenance fees, renewal fees, annuity fees and various other governmental fees associated with patents and patent applications due in several stages over the lifetime of patents and patent applications. The USPTO and various non-U.S. government agencies require compliance with several procedural, documentary, fee payment, and other similar provisions during the patent application process. We may or may not choose to pursue or maintain protection for particular inventions. In addition, there are situations in which failure to make certain payments or noncompliance with certain requirements in the patent process can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. If we choose to forego patent protection or allow a patent application or patent or other intellectual property right to lapse purposefully or inadvertently, our competitive position could suffer. In such an event, potential competitors might be able to enter the market with similar or identical products and solutions. If we fail to obtain, maintain, protect or enforce our intellectual property rights successfully, our competitive position could suffer. Any of the foregoing could materially harm our business, prospects, financial condition and results of operations.

Our rights to develop and commercialize our technology, products and solutions may in the future be subject, in part, to the terms and conditions of licenses granted to us by others.

In connection with the development of new products and solutions we may license intellectual property from third parties in the future or may deem it necessary to do so in order to commercialize our products or solutions. We may be unable to obtain these licenses at a reasonable cost, or at all. We could, therefore, incur substantial costs related to royalty payments or other payments for licenses obtained from third parties. We may also be unable to obtain exclusive rights to use such intellectual property or technology in all relevant fields of use and in all territories in which we may wish to develop or commercialize our products and solutions in the future and, as a result, we may not be able to prevent competitors from developing and commercializing competitive products or solutions. Moreover, we could encounter delays in introducing new products or solutions while we attempt to develop alternative products and solutions, and the defense of any lawsuit or failure to obtain any of these licenses on favorable terms could prevent us from commercializing our products and solutions, which would materially affect our ability to grow.

Our licensors might conclude that we have materially breached our license agreements and might therefore terminate the license agreements, thereby removing our ability to develop and commercialize products and solutions covered by such agreements. License agreements could also be time-limited or terminated, when possible, thereby removing our ability to develop and

commercialize products and solutions covered by such agreements. If these in-licenses are terminated, or if the underlying patents fail to provide the intended exclusivity, competitors might have the freedom to market competing products and solutions identical or similar to ours. Disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues; as well as the effectiveness of the license agreement in general;
- whether our products and solutions infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights under our collaborative development relationships;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the payment of royalties;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners, including the question of bearing the costs; and
- the priority of invention of patented technology.

In addition, agreements under which we license intellectual property or technology from third parties could be complex and turn out to be invalid in whole or in part. Certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology or increase what we believe to be our financial or other obligations under the relevant agreement. Moreover, if disputes over intellectual property or technology that we have licensed prevent or impair our ability to maintain other licensing arrangements on commercially acceptable terms, defending our position could materially harm our business, prospects, financial condition and results of operations.

With regard to the Unified Patent Court, which started on June 1, 2023, it should be noted that this is a completely new court system, whose procedural and adjudicative methods as well as the mutual effects between the national European patent jurisdictions and the jurisdiction of the new system are practically impossible to assess at present. This creates an uncertainty that may harm our business, prospects, financial condition and results of operations because decisions may be issued, and case law may develop that is disadvantageous for us.

Developments in patent law could have a negative impact on our business.

Changes in either the patent laws or interpretation of patent laws could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. From time to time, the United States Supreme Court (the "Supreme Court"), other federal courts, the U.S. Congress, the USPTO, or other foreign patent offices, courts or legislators may change the standards of patentability and any such changes could have a negative impact on our business. Assuming that other requirements for patentability are met, prior to March 2013, in the United States, the first to invent the claimed invention was entitled to the patent, while outside the United States, the first to file a patent application was entitled to the patent. After March 2013, under the Leahy-Smith America Invents Act (the "America Invents Act"), enacted in September 2011, the United States transitioned to a first inventor to file system in which, assuming that other requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. The America Invents Act also includes a number of significant changes that affect the way patent applications will be prosecuted and also may affect patent litigation. These include allowing third-party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO-administered post-grant proceedings, including post-grant review, IPR, and derivation proceedings. However, the America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

In addition, the patent positions of companies in our industry are particularly uncertain. U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain

situations. For example, diagnostic method claims and "gene patents" were considered in two landmark Supreme Court cases, *Mayo Collaborative v. Prometheus Laboratories* ("Prometheus"), and *Association for Molecular Pathology v. Myriad Genetics* ("Myriad"). In Prometheus, a case involving patent claims over a medical testing method directed to optimizing the amount of drug administered to a specific patient, Prometheus' claims failed to incorporate sufficient inventive content above and beyond merely describing underlying natural correlations to allow the claimed processes to qualify as patent-eligible processes that apply natural laws. In Myriad, a case brought by multiple plaintiffs challenging the validity of patent claims held by Myriad Genetics, Inc. relating to the breast cancer susceptibility genes BRCA1 and BRCA2, the court held that isolated genomic DNA that exists in nature, such as the DNA constituting the BRCA1 and BRCA2 genes, is not patentable subject matter, but that cDNA, which is an artificial construct created from RNA transcripts of genes, may be patent eligible. The Federal Circuit has begun to apply the holdings in Prometheus and Myriad. In 2015, the Federal Circuit, in *Ariosa v. Sequenom*, applying Prometheus, found claims to a prenatal diagnostic method that relied on a natural product to be patent ineligible, and clarified that the absence of preemption of a natural phenomenon was not sufficient to demonstrate patent eligibility.

In response to the Supreme Court decisions in Prometheus, Myriad, and *Alice Corporation Pty. Ltd. v. CLS Bank International* ("Alice Corp."), and others, the USPTO has updated the Manual of Patent Examination Procedure to provide guidance to USPTO personnel in determining the eligibility of patent claims reciting judicially recognized exceptions to patentable subject matter, including laws of nature, natural phenomena, or abstract ideas, for patent eligibility. The USPTO guidance indicates that claims reciting a judicial exception to patent-eligible subject matter must amount to significantly more than the judicial exception itself in order to be patent-eligible subject matter. We cannot assure you that our efforts to seek patent protection for our products and solutions will not be negatively impacted by this interim guidance issued by the USPTO, the decisions described above, rulings in other cases, or changes in guidance or procedures issued by the USPTO.

We cannot fully predict what impact the Supreme Court's decisions in Prometheus, Myriad, Alice Corp., and other decisions may have on our ability or the ability of companies or other entities to obtain or enforce patents relating to DNA, genes, or genomic-related discoveries in the future. Despite the USPTO's interim guidance and Federal Circuit cases described above, the contours of when claims reciting laws of nature, natural phenomena, or abstract ideas may meet the patent eligibility requirements are not clear and may take years to develop via interpretation at the USPTO and in the courts. There are many previously issued patents claiming nucleic acids and diagnostic methods based on natural correlations that issued before the recent Supreme Court decisions discussed, and although many of these patents may be invalid under the standards set forth in the Supreme Court's recent decisions, until successfully challenged, these patents are presumed valid and enforceable, and certain third parties could allege that we infringe, or request that we obtain a license to, these patents. Whether based on patents issued prior to or after these Supreme Court decisions, we might have to defend ourselves against claims of patent infringement, or choose to license rights, if available, under patents claiming such methods. In particular, although the Supreme Court has held in Myriad that isolated genomic DNA is not patent-eligible subject matter, certain third parties could allege that activities that we may undertake infringe other classes of gene-related patent claims, and we could have to defend ourselves against these claims by asserting non-infringement and/or invalidity positions or pay to obtain a license to these claims. In any of the foregoing or in other situations involving third-party intellectual property rights, if we are unsuccessful in defending against claims of patent infringement, we could be forced to pay damages or be subjected to an injunction that would prevent us from utilizing the patented subject matter in question if we are unable to obtain a license on reasonable terms or at all. Such outcomes could materially affect our ability to offer our products and solutions and have a material adverse impact on our business. Even if we are able to obtain a license or successfully defend against claims of patent infringement, the cost and distraction associated with the defense or settlement of these claims could have a material adverse impact on our business. Any of the foregoing could materially harm our business, prospects, financial condition and results of operations.

We may not be able to enforce our intellectual property rights throughout the world.

Many companies have encountered significant problems in protecting and defending intellectual property rights in certain foreign jurisdictions. Accordingly, we may face an increased risk in these jurisdictions that unauthorized parties may attempt to copy or otherwise obtain or use our patented technology, trademarks, formulations or other intellectual property. The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of Germany or the United States. Specifically, the legal systems of some countries, particularly developing countries, do not favor the enforcement of patents and other intellectual property protection, especially those relating to biotechnology. This could make it difficult for us to stop the infringement of our patents or other intellectual property rights and to prevent third parties from selling or importing products made using our inventions in and to the United States, Germany or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent or other protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection but enforcement is not as strong as that in Germany or the United States. These products may compete with our products and solutions, and our patents or other intellectual property rights may not be effective or sufficient to

prevent them from competing. In addition, the use of our patents and/or other intellectual property rights may be permitted in individual cases because, for example, prior use rights or other privileges exist, e.g. use of the patents for experimental or research purposes. Additionally, many countries have compulsory licensing laws under which a patent owner must grant licenses to third parties or limit the enforceability of patents against third parties, including government agencies or government contractors. In these countries, patents may provide limited or no benefit. Patent protection must ultimately be sought on a country-by-country basis, which is an expensive and time-consuming process with uncertain outcomes. Accordingly, we may choose not to seek patent protection in certain countries, and we will not have the benefit of patent protection in such countries.

Monitoring infringement and misappropriation of intellectual property can be difficult and expensive, and we may not be able to detect every instance of infringement or misappropriation of our proprietary rights. Even if we do detect infringement or misappropriation of our proprietary rights, proceedings to enforce our intellectual property rights could result in substantial costs, divert the efforts and attention of our employees and management from other aspects of our business, put our patents at risk of being invalidated or construed narrowly or provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property and proprietary rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop. In addition, changes in the law and legal decisions by courts in Germany, the United States and other jurisdictions, in particular, the newly formed European Unified Patent Court, may affect our ability to obtain adequate protection for our products and solutions and to enforce our intellectual property rights. Any of the foregoing could materially harm our business, prospects, financial condition and results of operations.

Third parties may assert ownership or commercial rights to inventions we develop.

Third parties may in the future make claims challenging the inventorship or ownership of our intellectual property. For example, we rely on certain third parties to provide us with biological materials that we use to conduct our genomic analyses. We have written agreements with collaborators that provide for the ownership of intellectual property arising from our collaborations. These agreements provide that we must negotiate certain commercial rights with collaborators with respect to joint inventions or inventions made by our collaborators that arise from the results of the collaboration. In some instances, there may not be adequate written provisions to clearly address the resolution of intellectual property rights that may arise from a collaboration. If we cannot successfully negotiate sufficient ownership and commercial rights to the inventions that result from our use of a third-party collaborator's materials where required, or if disputes otherwise arise with respect to the intellectual property developed with the use of a collaborator's samples, we may be limited in our ability to capitalize on the market potential of these inventions. In addition, we may face claims that our agreements with our management, employees, contractors, or consultants obligating them to assign intellectual property to us are ineffective, or in conflict with prior or competing contractual obligations of assignment, which could result in ownership disputes regarding intellectual property we have developed or will develop and interfere with our ability to capture the commercial value of such inventions. We cannot exclude the possibility that third parties may claim to have made contributions to our inventions and accordingly claim co-inventor shares in inventions that we believe were made without the participation of third parties. Litigation may be necessary to resolve an ownership dispute, and if we are not successful, we may be precluded from using certain intellectual property, or may lose our exclusive rights in that intellectual property and may even face damages and/or compensation claims of the third party for our use of the intellectual property. Any of the foregoing could materially harm our business, prospects, financial condition and results of operations.

Most of our employees and inventions are subject to German law.

Most of our personnel, including many of our directors, work in Germany and are subject to German employment law. Inventions which may be the subject of a patent or of protection as a utility model and which are or were made by personnel working in Germany (except for legal representatives of our respective legal entities, for example managing directors) are subject to the provisions of the German Act on Employees' Inventions (*Gesetz über Arbeitnehmererfindungen*) (the "German Inventions Act"), which regulates the ownership of, and compensation for, inventions made by employees. We face the risk that disputes may occur between us and our current or past employees pertaining to the sufficiency of compensation paid by us, allocation of rights to inventions under this Act or alleged non-adherence to the provisions of this Act, any of which may be costly to resolve and take up our management's time and efforts whether we prevail or fail in such dispute. In addition, under the German Inventions Act, certain employees retain rights to patents and/or utility models they invented or co-invented and disclosed to us prior to October 1, 2009. If we do not manage to have the respective third-party interests transferred to us or are unable to obtain an exclusive license to any such third-party co-owners' or owners' interest in such patents and/or utility models, such co-owners or owners may be able to transfer or license their rights to other third parties, including our competitors. In addition, we may need the cooperation of any such co-owners or owners to enforce any such patents and/or utility models against third parties, or to conclude license agreements regarding such

patents and/or utility models with third parties, and such cooperation may not be provided to us. While we believe that all our current and past German employee inventors have subsequently assigned to us their interest in inventions, patents and/or utility models they invented or co-invented, there can be no assurance that all such assignments are fully effective, which can lead to unexpected costs or economic disadvantages. Even if we lawfully own all inventions created by our employees who are subject to the German Inventions Act, we are required under German law to reasonably compensate such employees for the use of the inventions and intellectual property rights related thereto. If we are required to pay compensation or face other disputes under the German Inventions Act, our results of operations could be adversely affected. Legal representatives of legal entities, for example managing directors, whose contractual relationships with the respective entity are subject to German law and that are not subject to the German Inventions Act as well as consultants must assign and transfer their interest in inventions, patents and/or utility models they invent or co-invent to us in order for us to have any rights to such inventions, patents and/or utility models. While we believe that all assignments have been made, there can be no assurance that all such assignments are fully effective, which may harm our business, prospects, financial condition and results of operations.

If any of our current or past employees, legal representatives of our legal entities or consultants obtain or retain ownership or co-ownership of any inventions or related intellectual property rights that we believe we own, we may lose valuable intellectual property rights and be required to acquire the respective third-party interests or to obtain and maintain licenses from such employees, legal representatives of legal entities or consultants to such inventions or intellectual property rights, which may not be available on commercially reasonable terms or at all, or may be non-exclusive. If we are unable to acquire the respective third-party interests or to obtain and maintain a license to any such employee's, legal representatives of legal entities' or consultant's interest in such inventions or intellectual property rights, we may need to cease the development, manufacture, and commercialization of one or more of the products or solutions we may develop or may have developed. In addition, any loss of exclusivity of our intellectual property rights could limit our ability to stop others from using or commercializing similar or identical products and solutions. We may also face entitlement, compensation and/or damages claims from our current or past employees, legal representatives of our legal entities or consultants owning or co-owning any inventions or related intellectual property rights that we believe we own. Any of the foregoing events could materially harm our business, prospects, financial condition and results of operations.

Third parties may assert that our employees or consultants have wrongfully used or disclosed confidential information or misappropriated trade secrets.

Many of our employees (including our management) and consultants are currently or were previously employed at universities or other diagnostic or biopharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees and consultants do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these individuals have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of a current or former employer or other third parties. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees and/or consultants. Such claims could materially harm our business, prospects, financial condition and result of operations.

In addition, while it is our policy to require our employees (including our management) and consultants who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. Such claims could materially harm our business, prospects, financial condition and results of operations.

Intellectual property rights do not necessarily address all potential threats.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- others may be able to make products or solutions that are similar to any products or solutions we develop or commercialize or utilize similar technology but that are not covered by the claims of our patents or patents that we might own or license in the future;

- we might not have been the first to make the inventions covered by the issued patents or pending patent applications that we own or may own or license in the future, and this may result for example in possible rights to use the invention for the one who first made the invention; and in the invalidity of our patents;

- we might not have been the first to file patent applications covering certain of our inventions;

- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;

- it is possible that our pending patent applications or those that we may own or license in the future will not lead to issued patents;

- our issued patents or patents for which we hold or will hold licenses may be held invalid or unenforceable, including as a result of legal challenges by our competitors;

- courts might find our patents not infringed by products of third parties;

- our customers or competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products or solutions for sale in our major commercial markets;

- we may not develop additional proprietary technologies that are patentable;

- the patents of others may harm our business; and

- we may choose not to file a patent in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property.

Should any of these events occur, they could materially harm our business, prospects, financial condition and results of operations.

Risks Relating to Our Financial Condition and Capital Requirements

We have a history of losses and we may incur losses in the future.

We have historically incurred losses, including total comprehensive losses of EUR 35,803 thousand, EUR 31,917 thousand and EUR 45,703 thousand in the years ended December 31, 2023, 2022 and 2021, respectively. We expect our losses to continue as a result of ongoing research and development expenses and increased selling and marketing costs. These losses have had, and will continue to have, an adverse effect on our working capital, total assets, and shareholders' equity. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our inability to achieve and then maintain profitability would negatively affect our business, financial condition, results of operations, and cash flows.

We will require additional funding

We incurred net losses for the year ended December 31, 2023. Our continued operations and the development of our business will require additional capital.

In addition to sales of our products, we have historically relied upon sales of our equity or debt securities to fund our operations. Please see Liquidity and Capital Resources – Overview below for further details.

We may need to raise additional capital to fund our existing operations, develop our genetic information platform, commercialize new products and solutions and expand our operations.

If our available cash balances and anticipated cash flow from operations are insufficient to satisfy our liquidity requirements, including because of lower demand for our products or solutions as a result of other risks described herein, we may seek to sell common or preferred equity or convertible debt securities, enter into another credit facility or another form of third party funding, or seek other debt financing.

Our ongoing efforts to expand our business will require substantial cash resources. We may consider raising additional capital in the future to expand our business, to pursue strategic investments, to take advantage of financing opportunities, or for other reasons, including to:

- increase our sales and marketing efforts to drive market adoption of our products and solutions and address competitive developments;
- fund development and marketing efforts of any future products and solutions;
- further expand our laboratory operations;
- expand our technologies into other types of diseases;
- obtain, maintain, protect and enforce existing or new intellectual property rights;
- acquire, license or invest in technologies, including information technologies;
- acquire or invest in complementary businesses or assets; and
- finance capital expenditures and general and administrative expenses.
- Our present and future funding requirements will depend on many factors, including:
- our ability to achieve revenue growth;
- the cost of expanding our laboratory operations and offerings, including our sales and marketing efforts;
- our rate of progress in, and cost of the sales and marketing activities associated with, establishing adoption of our products and solutions;
- our rate of progress in, and cost of research and development activities associated with, products and solutions in research and early development;
- the effect of competing technological and market developments;
- costs related to international expansion; and
- the potential cost of and delays in research and development as a result of any regulatory oversight applicable to our products and solutions.

If we raise funds by issuing debt securities, those debt securities would have rights, preferences, and privileges senior to those of holders of our common shares. The terms of debt securities issued or borrowings pursuant to a credit or similar agreement could impose significant restrictions on our operations. Such financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring debt, making capital expenditures or declaring dividends. If additional funds are raised by issuing equity securities through the sale of common shares or securities convertible or exchangeable into common shares, the ownership interest of our shareholders may be further diluted, and the terms of any securities may include liquidation or other preferences that materially adversely affect the rights of our common shareholders. In addition, if we were to issue

equity securities at a low share price and low market valuation, it might be difficult for us to raise sufficient additional funds due to the significant dilution to current shareholders.

If we raise funds through additional collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our intellectual property, future revenue streams, research programs or drug candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our drug development or future commercialization efforts or grant rights to develop and market drug candidates that we would otherwise prefer to develop and market ourselves.

Additional equity or debt financing might not be available on reasonable terms or at all. Because of our potential long term capital requirements, we may access the public or private equity or debt markets whenever conditions are favorable, even if we do not have an immediate need for additional capital at that time. If we cannot secure additional funding when needed, we may have to delay, reduce the scope of, or eliminate one or more research and development programs or sales and marketing initiatives. In addition, we may have to work with a partner on one or more of our development programs, which could lower the economic value of those programs to us. Lastly, if we are unable to obtain the requisite amount of financing needed to fund our planned operations, our business could be jeopardized, and we may not be able to continue our operations or pursue our strategic plans. If we are forced to scale down or limit or cease operations, our shareholders could lose all of their investment in our Company.

We were exploring strategic alternatives that could significantly impact our future operations and financial position.

On February 28, 2024, we announced that we are exploring strategic alternatives with the goal of maximizing shareholder value. On November 12, 2024, the Company and Charme entered into the Share Purchase Agreement for the acquisition by Charme (or an affiliate of Charme) of all issued and outstanding shares in the capital of Centogene GmbH and certain intra-group receivables for an aggregate purchase price of (i) EUR 8,717,906.80 in cash to be paid upon Closing and (ii) the assumption by Charme (or an affiliate of Charme) at Closing of the Company's rights, obligations and liabilities under the Convertible Loan Agreement. See Notes 2.2 and Note 29 to the Consolidated Financial Statements for further details.

Increasing our financial leverage could affect our operations, profitability and ability to raise additional capital.

Following disbursement of the second tranche of USD 20.0 million loan of our Loan and Security Agreement at the end of 2022, and the signed Convertible Loan Agreement with a total face value of USD 30.0 million in 2023, our leverage has increased further. Our leverage may materially affect the availability of additional capital resources as well as our operations in several ways, including higher levels of interest expense to service or maintain our outstanding debt, the unavailability of additional borrowings in the future to repay our indebtedness when it comes due, less attractive economic or legal terms on which capital may be available to us and the possible diversion of liquidity from other uses. See Note 29 to the Consolidated Financial Statements for further details.

Failure to meet covenants in our debt agreements could result in acceleration of our payment obligations thereunder, and we may not be able to find alternative financing.

Under the Loan and Security Agreement among Centogene N.V., Centogene GmbH, CentoSafe B.V. and Centogene US, LLC, as well as Oxford Finance LLC, we are required to maintain a specified amount of consolidated gross product revenue from our diagnostics and pharmaceutical services segments as of the end of each fiscal quarter on a trailing twelve-month basis, as specified in the Loan and Security Agreement. Our ability to comply with this covenant may be affected by factors beyond our control.

On July 28, 2022, we amended the Loan and Security Agreement to expand the scope of Permitted Indebtedness and Permitted Liens (each, as defined therein). On April 30, 2023, we amended the Loan and Security Agreement for a second time to permit (i) the delivery of our audited consolidated financial statements for the fiscal year ended December 31, 2022 thirty days later than is otherwise required and (ii) the listing of our common shares on Nasdaq Global Market.

The Second Amendment introduced new requirements that (i) we prepay any outstanding loans under the Loan and Security Agreement in an amount of USD 5.0 million (plus fees, interest and expenses, in each case, pursuant to the terms of the Loan and Security Agreement) upon the first new business development or financing transaction we enter and (ii) we maintain at least EUR 9.1 million in unrestricted cash on deposit in collateral accounts subject to Oxford's perfected security interest granted under the Loan and Security Agreement.

On October 26, 2023 a new amendment was signed. This third amendment modified the existing requirements whereby (i) a reduction in interest rate was introduced, and (ii) maturity date was extended and (iii) removal of the requirement to hold EUR 9.1 million in unrestricted cash on deposit and (iv) removal of the USD 5.0 million (plus fees, interest and expenses, in each case, pursuant to the terms of the Loan and Security Agreement) once the Joint Venture (see Joint Venture Agreement, Note 1 to the Consolidated Financial Statements) had been created and signing of the ancillary agreements. Additional to this, due to the third amendment there is one tranche of USD 45 million as opposed to two tranches of USD 25 million and USD 20 million respectively.

On May 12, 2024, in connection with our entry into transactions with Lifera as further described in Notes 2.2 and 29 to the Consolidated Financial Statements, the Loan and Security Agreement was further amended to include the addition of certain covenants. Specifically, we agreed to certain near-term timing requirements for the entry into a binding definitive agreement for the sale of the Company by July 15, 2024, and subsequently extended the deadline until the end of November 2024.

On November 12, 2024, the Company and Charme entered into a "Share Purchase Agreement" -See Note 29 to the Consolidated Financial Statements for further details – as a result of such the Company complied with the covenant mentioned above.

If we fail to comply with the covenants contained in the Loan and Security Agreement or the amendments thereto, it could result in an event of default under the Loan and Security Agreement, which would permit or, in certain events, require Oxford to declare all amounts outstanding thereunder to be immediately due and payable. There can be no assurances that we will be able to repay all such amounts or able to find alternative financing in an event of a default. Even if alternative financing is available in an event of a default under the Loan and Security Agreement, it may be on unfavorable terms, and the interest rate charged on any new borrowings could be substantially higher than the interest rate under the Loan and Security Agreement, thus adversely affecting cash flows, results of operations, and ultimately, our ability to meet operating cash flow requirements.

The restrictive covenants in the Loan and Security Agreement and the Borrower's obligation to make debt payments under the Loan and Security Agreement may limit our operating and financial flexibility and may adversely affect our business, financial condition and results of operations.

The Loan and Security Agreement imposes operating and financial restrictions and covenants, which may limit or prohibit our ability to, among other things:

- incur additional indebtedness;
- make investments, including acquisitions;
- make payments on debt subordinated to the creditors under the Loan and Security Agreement;
- create liens on our property;
- make dividends, distributions or other restricted payments;
- effect affiliate transactions;
- enter into mergers, divisions, consolidations or sales of substantially all of our or our subsidiaries' assets;
- change business activities; or
- sell or otherwise dispose of property (without using the proceeds thereof to repay the obligations under the Loan and Security Agreement).

In addition, we are required to comply with certain financial covenants under the Loan and Security Agreement as described above.

Such restrictive covenants in the Loan and Security Agreement and our repayment obligations under the Loan and Security Agreement could have adverse consequences to us, including:

- limiting our ability to use cash;

- limiting our flexibility in operating our business and planning for, or reacting to, changes in our business and our industry;

- requiring the dedication of a substantial portion of any cash flow from operations to the payment of principal of, and interest on, our indebtedness, thereby reducing the availability of such cash flow to fund our operations, working capital, capital expenditures, future business opportunities and other general corporate purposes;

- restricting us from making strategic acquisitions or causing us to make non-strategic divestitures;

- limiting our ability to obtain additional financing;

- limiting our ability to adjust to changing market conditions; and

- placing us at a competitive disadvantage relative to our competitors who are less leveraged.

We may be required to refund grants and subsidies.

We have received various grants and subsidies to fund our research and development programs from various funding organizations. However, the Company continues to engage in efforts to secure further grants and subsidies for the next development steps of its product candidates. Some of these grants and subsidies provide for certain requirements in respect of the utilization of proceeds generated because of the publicly sponsored projects. For example, we received grants from the European Regional Development Fund to fund our Rostock facility, which grants are limited in purpose to development and innovation in the state of Mecklenburg-Western Pomerania, Germany. Other grants which we obtain may impose restrictions on our operations, and if we are in noncompliance with the restrictions and conditions of any grant or subsidy program, a partly or complete repayment cannot be excluded. This may also apply to grants and subsidies we may apply for in the future. If we are required to refund grants or subsidies, this could have a material adverse effect on our liquidity and cash flow position and may negatively affect our business, prospects, and financial conditions. In the year ended December 31, 2023, we have received a total of EUR nil thousand in grants for our activities, but three grants were approved during the last quarter of 2023 and were recognized as a receivable in the financial statements.

We incur significant costs as a result of operating as a public company and our management needs to devote substantial time to public company compliance programs.

As a public company, we incur significant legal, accounting, and other expenses due to our compliance with regulations and disclosure obligations applicable to us, including compliance with the Sarbanes-Oxley Act ("SOX"), as well as rules implemented by the SEC, and the Nasdaq Global Market ("Nasdaq"). The SEC and other regulatory authorities have continued to adopt new rules and regulations and make additional changes to existing regulations that require our compliance. In July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") was enacted. There are significant corporate governance- and executive compensation-related provisions in the Dodd-Frank Act that have required the SEC to adopt additional rules and regulations in these areas. Shareholder activism, the current political environment, and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact, in ways we cannot currently anticipate, and the way we operate our business. Our management and other personnel will need to devote a substantial amount of time to these compliance programs and the monitoring of public company reporting obligations, and as a result of the new corporate governance- and executive compensation-related rules, regulations, and guidelines prompted by the Dodd-Frank Act, and further regulations and disclosure obligations expected in the future, we will likely need to devote additional time and costs to comply with such rules and regulations. These rules and regulations will cause us to incur significant legal and financial compliance costs and will make certain activities more time-consuming and costly.

To comply with the requirements of being a public company, we may need to undertake various actions, including implementing new internal controls and procedures and hiring new accounting or internal audit staff. The Sarbanes-Oxley Act requires that we maintain effective disclosure controls and procedures and internal control over financial reporting. We are continuing to develop and refine our disclosure controls, other procedures and internal control over financial reporting that are designed to ensure that information required to be disclosed by us in the reports that we file with the SEC is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and that information required to be disclosed in reports under the Exchange Act is accumulated and communicated to our principal executive and financial officers. Our current controls and any new controls that we develop may become inadequate, and additional material weaknesses in our internal control over financial reporting may be discovered in the future. Any failure to develop or maintain effective controls could adversely affect the results of periodic management evaluations and annual independent registered public accounting firm attestation reports regarding the effectiveness of our internal control over financial reporting, which we may be required to include in the periodic reports we file with the SEC under Section 404 of the Sarbanes-Oxley Act, and could harm our operating results, cause us to fail to meet our reporting obligations, or result in a restatement of our prior period financial statements. In the event that we are not able to demonstrate compliance with the Sarbanes-Oxley Act, that our internal control over financial reporting is perceived as inadequate, or that we are unable to produce timely or accurate financial statements, investors may lose confidence in our operating results, and the price of our common shares could decline.

We are required to comply with certain of the SEC rules that implement Section 404 of the Sarbanes-Oxley Act, which requires management to certify financial and other information in our annual reports and provide an annual management report on the effectiveness of our internal control over financial reporting, commencing with this, our third annual report. This assessment includes the disclosure of any material weaknesses in our internal control over financial reporting identified by our management or our independent registered public accounting firm. During the evaluation and testing process, if we identify one or more material weaknesses in our internal control over financial reporting or if we are unable to complete our evaluation, testing, and any required remediation in a timely fashion, we will be unable to assert that our internal control over financial reporting is effective.

Our independent registered public accounting firm will not be required to formally attest to the effectiveness of our internal control over financial reporting until the first annual report required to be filed with the SEC following the date we are no longer an "emerging growth company" as defined in the JOBS Act.

As a result of the Transaction described in Note 29 to the Consolidated Financial Statements, the Company will be delisted and therefore compliance with Section 404 of the Sarbanes-Oxley Act will not be required.

If we fail to implement effective internal controls over financial reporting, such failure could result in material misstatements in our financial statements, cause investors to lose confidence in our reported financial and other public information and have a negative effect on the trading price of our common shares.

Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation could cause us to fail to meet our reporting obligations. Section 404 of the Sarbanes-Oxley Act of 2002 requires management of public companies to develop and implement internal controls over financial reporting and evaluate the effectiveness thereof. If we fail to design and operate effective internal controls or remediate our existing material weaknesses, it could result in material misstatements in our financial statements, impair our ability to raise revenue, result in the loss of investor confidence in the reliability of our financial statements and subject us to regulatory scrutiny and sanctions, which in turn could harm the market value of our common shares.

We will be required to disclose changes made in our internal controls and procedures and our management will be required to assess the effectiveness of these controls annually. However, for as long as we are an "emerging growth company" under the JOBS Act, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal controls over financial reporting pursuant to Section 404. As a result of the Transaction described in Note 29 to the Consolidated Financial Statements, the Company will be delisted and therefore compliance with Section 404 of the Sarbanes-Oxley Act will not be required.

We have identified three material weaknesses in our internal control over financial reporting and may identify additional material weaknesses in the future that may cause us to fail to meet our reporting obligations or result in material misstatements of our financial statements. If we fail to remediate our material weaknesses or if we fail to establish and maintain an effective system of internal control over financial reporting, we may not be able to report our financial results accurately or to prevent fraud.

Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation could cause us to fail to meet our reporting obligations. Section 404 of the Sarbanes Oxley Act of 2002 requires management of public companies to develop and implement internal controls over financial reporting and evaluate the effectiveness thereof. A material weakness is a deficiency or a combination of deficiencies in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our financial statements will not be prevented or detected on a timely basis.

In connection with the preparation of our consolidated financial statements, we have historically identified material weaknesses in our internal controls. These material weaknesses were not remediated as of December 31, 2023, and relate to a lack of effectively designed review and monitoring financial statement close controls, including the lack of accounting policies and personnel with appropriate skills to enable timely and appropriate technical assessments under IFRS, together with the lack of policies and procedures with respect to the review, supervision and monitoring of the accounting and reporting functions; a lack of an effectively designed and operating general IT controls framework (including system interfaces); and a lack of oversight and controls over the work performed by third-party advisors.

In response to such material weaknesses, we performed a root cause analysis of the material weaknesses identified, as well as performed risk assessments to identify significant business processes and relevant financial risks. As a result of the Transaction described in Note 29 to the Consolidated Financial Statements, the Company was delisted and therefore compliance with Section 404 of the Sarbanes-Oxley Act will not be required.

Our results of operations could be materially adversely affected by fluctuations in foreign currency exchange rates.

Although we report our results of operations in Euro, not all of our net revenues are denominated in the Euro. Unfavorable fluctuations in foreign currency exchange rates could have a material adverse effect on our results of operations.

Because our consolidated financial statements are presented in Euro, we must translate revenues, expenses and income, as well as assets and liabilities, into Euros at exchange rates in effect during or at the end of each reporting period. Therefore, changes in the value of the Euro against other currencies will affect our net revenues, operating income and the value of balance-sheet items originally denominated in other currencies. These changes cause our growth in consolidated earnings stated in Euro to be higher or lower than our growth in local currency when compared against other periods.

As we continue to leverage our global delivery model, more of our expenses are incurred in currencies other than those in which we bill for the related services. An increase in the value of certain currencies against the Euro could increase costs for delivery of services at off-shore sites by increasing labor and other costs that are denominated in local currency. There can be no assurance that our contractual provisions will offset their impacts. We also face risks that extreme economic conditions, political instability or hostilities or disasters of the type described below could impact our underlying exposures, perhaps eliminating them. Such an event could lead to losses being recognized on the currency hedges then in place, not offset by anticipated changes in the underlying hedge exposure.

The company has signed a convertible loan agreement with Lifera in the total amount of USD 30 million in cash. Additionally, both companies entered into a Joint Venture Agreement (the "JV"), the terms of which include three ancillary agreements, all of which are expected to result in future positive cash inflows to the company including milestone payments, royalty fees and other revenues. Due to these arrangements being made in Saudi Riyal, we may incur financial loss due to foreign currency exchange fluctuations.

Certain Factors Relating to Our Common Shares

Sales of substantial amounts of our common shares in the public market, or the perception that these sales may occur, could cause the market price of our common shares to decline.

Sales of substantial amounts of our common shares in the public market, or the perception that these sales may occur, could cause a decline in the market price of our common shares. This could also impair our ability to raise additional capital through the sale of our equity securities. Under our articles of association, we are authorized to issue up to 79,000,000 common shares, of which 29,000,137 common shares were outstanding as of December 31, 2023. If our existing shareholders sell substantial amounts of common shares in the public market, or the market perceives that such sales may occur, the market price of our common shares and our ability to raise capital through an issue of equity securities in the future could be adversely affected.

Moreover, we have entered into a registration rights agreement entitling certain of our existing shareholders to rights, subject to conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other shareholders. In addition, we have registered on a Form S-8 registration statement all common shares that we may issue under our long new term equity incentive plan.

As a result, these shares can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates. If these additional shares are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common shares could decline.

Our ordinary shares may be thinly traded and you may be unable to sell at or near ask prices or at all if you need to sell your shares to raise money or otherwise desire to liquidate your shares.

Our common shares may be "thinly-traded" meaning that the number of persons interested in purchasing our common shares at or near bid prices at any given time may be relatively small. This situation may be attributable to a number of factors, including the fact that we are relatively unknown to most stock analysts, stock brokers, institutional investors and others in the investment community that generate or influence sales volume, and that even if we came to the attention of such persons, they tend to be risk-averse and might be reluctant to follow a younger company such as ours or purchase or recommend the purchase of our shares until such time as we became more seasoned. As a consequence, there may be periods of weeks when trading activity in our shares is minimal, as compared to a seasoned issuer which has a large and steady volume of trading activity that will generally support continuous sales without an adverse effect on share price. A broad or active public trading market for our common shares may not develop or be sustained.

We have broad discretion in the use of our cash on hand and may invest or spend it in ways with which you do not agree and in ways that may not yield a return on your investment.

As of December 31, 2023, we had EUR 19.1 million in cash and cash equivalents. Our management will have broad discretion in the use of such cash and could spend it in ways that do not improve our results of operations or enhance the value of our common shares. You will not have the opportunity to influence our decisions on how to use our cash on hand. The failure by our management to apply these funds effectively could result in financial losses that could harm our business, cause the price of our common shares to decline and delay the development of our product candidates. Pending its use, we may invest our cash on hand in a manner that does not produce income or that loses value.

We may in the future not be compliant with all of Nasdaq's continued listing standards and our common shares could be delisted.

Our common shares as of December 31, 2023 were listed for trading on the Nasdaq Global Market. Remaining listed for trading on Nasdaq requires us to remain compliant with Nasdaq's current continued listing requirements, which include maintaining minimum levels of shareholders' equity, assets and revenues (depending on the compliance standard being used to demonstrate compliance), and

other quantitative standards such as minimum market value of publicly held shares, $1.00 minimum closing bid price, and number of market makers.

On December 12, 2022, we received notification from the Nasdaq Stock Market LLC Listing Qualifications Department ("Nasdaq's Listing Department") that our Company was not in compliance with the minimum bid price requirement set forth in Nasdaq Rule 5450(a)(1) since the closing bid price for the Company's common shares listed on Nasdaq was below US$1.00 for 30 consecutive business days. Nasdaq Rule 5450(a)(1) requires the shares to maintain a minimum bid price of US$1.00 per share, and Nasdaq Rule 5810(c)(3)(A) provides that failure to meet such a requirement exists when the bid price of the shares is below US$1.00 for a period of 30 consecutive business days. On February 6, 2023, we received confirmation from Nasdaq that our Company has regained compliance with the minimum bid price requirement for continued listing under Nasdaq Rule 5450(a)(1), because the closing bid price of our common shares had been at $1.00 per share or greater for the last 10 consecutive business days, from January 23 through February 3, 2023.

On April 24, 2023, we received a new notification from Nasdaq's Listing Department, indicating that our Company was again not in compliance with the minimum bid price requirement set forth in Rule 5450(a)(1) of the Nasdaq Listing Rules since the closing bid price for the Company's common shares listed on Nasdaq was below US$1.00 for 30 consecutive business days (from March 10 through April 21, 2023). On July 12, 2023, we received confirmation from Nasdaq that our Company has regained compliance with the minimum bid price requirement for continued listing under Nasdaq Rule 5450(a)(1), because the closing bid price of our common shares had been at $1.00 per share or greater for the last 10 consecutive business days, from June 27 through July 11, 2023.

On June 8, 2023, we received notification from the Nasdaq Stock Market LLC Listing Qualifications Department ("Nasdaq's Listing Department") that our Company was not in compliance with the minimum Market Value of Publicly Held Shares ("MVPHS") set forth in the Nasdaq Listing Rule 5450(b)(3)(C) for continued listing on the Nasdaq Global Market. Nasdaq Listing Rule 5450(b)(3)(C) requires companies to maintain a minimum MVPHS of USD 15 million, and Listing Rule 5810(c)(3)(D) provides that a failure to meet the MVPHS requirement exists if the deficiency continues for a period of 30 consecutive business days. Based on the MVPHS of the Company for the 30 consecutive business days from April 26, 2023 to June 7, 2023, the Company no longer met the MVPHS minimum requirement. On July 13, 2023, we received confirmation from Nasdaq that our Company has regained compliance of the minimum Market Value of Publicly Held Shares ("MVPHS") requirement set forth in the Nasdaq Listing Rule 5450(b)(3)(C), because the Company's MVPHS has been $15,000,000 or greater for the last 10 consecutive trading days, from June 28 through July 12, 2023.

On August 30, 2023, we received a notification from Nasdaq's Listing Department, indicating that our Company was not in compliance with the minimum Market Value of Publicly Held Shares ("MVPHS") set forth in the Nasdaq Listing Rule 5450(b)(3)(C) for continued listing on the Nasdaq Global Market. Nasdaq Listing Rule 5450(b)(3)(C) requires companies to maintain a minimum MVPHS of USD 15 million, and Listing Rule 5810(c)(3)(D) provides that a failure to meet the MVPHS requirement exists if the deficiency continues for a period of 30 consecutive business days. Based on the MVPHS of the Company for the 30 consecutive business days from July 19, 2023 to August 29, 2023, the Company no longer met the MVPHS minimum requirement. In accordance with Listing Rule 5810(c)(3)(D) of the Nasdaq Listing Rules, we had a period of 180 calendar days from the date of notification, or until February 26, 2024, to regain compliance with the minimum MVPHS requirement.

On February 27, 2024, we received a notification from Nasdaq's Listing Department notifying the Company of the determination of Nasdaq to delist the Company's securities from The Nasdaq Global Market due to non-compliance with the MVPHS requirement, subject to our right to a hearing with the Nasdaq Listing Panel. On March 27, 2024, we also received a deficiency notice with respect to the minimum bid price requirement set forth in Rule 5450(a)(1) of the Nasdaq Listing Rules. On April 30, 2024, we had a hearing regarding the delisting notice and presented a plan of compliance with respect to the MVPHS requirement consisting of the achievement of specific milestones related to our strategic alternative review process; specifically, progress with respect to a definitive binding agreement to sell the Company.

On May 13, 2024, Nasdaq granted the Company's request for continued listing on Nasdaq until August 26, 2024 (the "extension period"), subject to the Company achieving certain interim progress milestones with respect to its strategic alternative review process and regaining compliance with the MVPHS requirement as a result of the completion of a transaction by August 26, 2024. However, there can be no assurance that the Company will achieve such milestones or regain compliance within the granted extension period. Further, there can be no assurance that the Panel will not reconsider the terms of such extension based upon events, conditions or circumstances that may exist or develop with the Company, which, in the opinion of the Panel, may make continued listing on the Nasdaq Global Market inadvisable.

On August 6, 2024, Centogene N.V. (the "Company") received notice from The Nasdaq Stock Market LLC ("Nasdaq") that the Nasdaq Hearings Panel has determined to delist the Company's common stock because the Company remains noncompliant with Nasdaq Listing Rule 5450(b)(2)(C), which requires a minimum USD 15 million market value of publicly held shares. Suspension of trading in the Company's common stock on Nasdaq became effective at the open of trading on August 8, 2024. Following the delisting of its common stock from Nasdaq, the Company continued to be a reporting company under the Securities Exchange Act of 1934. The Company applied to trade its common stock on the OTCQB Market and, on October 9, 2024, the Company began trading on OTCQB.

Unless our common shares are listed on a national securities exchange, our common shares may also be subject to the regulations regarding trading in "penny stocks," which are those securities trading for less than $5.00 per share, and that are not otherwise exempted from the definition of a penny stock under other exemptions provided for in the applicable regulations. The following is a list of the general restrictions on the sale of penny stocks:

- Before the sale of penny stock by a broker-dealer to a new purchaser, the broker-dealer must determine whether the purchaser is suitable to invest in penny stocks. To make that determination, a broker-dealer must obtain, from a prospective investor, information regarding the purchaser's financial condition, investment experience, and objectives. Subsequently, the broker-dealer must deliver to the purchaser a written statement setting forth the basis of the suitability finding and obtain the purchaser's signature on such statement.

- A broker-dealer must obtain from the purchaser an agreement to purchase the securities. This agreement must be obtained for every purchase until the purchaser becomes an "established customer."

- The Securities Exchange Act of 1934, as amended (the "Exchange Act") requires that before effecting any transaction in any penny stock, a broker-dealer must provide the purchaser with a "risk disclosure document" that contains, among other things, a description of the penny stock market and how it functions, and the risks associated with such investment. These disclosure rules are applicable to both purchases and sales by investors.

- A dealer that sells penny stock must send to the purchaser, within 10 days after the end of each calendar month, a written account statement including prescribed information relating to the security.

These requirements can severely limit the liquidity of securities in the secondary market because fewer brokers or dealers are likely to be willing to undertake these compliance activities. If our common shares are not listed on a national securities exchange, the rules and restrictions regarding penny stock transactions may limit an investor's ability to sell to a third party and our trading activity in the secondary market may be reduced.

We are an "emerging growth company" and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our common shares less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act, and we are taking advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies." For example, for as long as we are an "emerging growth company" under the JOBS Act, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act. As a result of the Transaction described in Note 29 to the Consolidated Financial Statements, the Company was delisted and therefore compliance with Section 404 of the Sarbanes-Oxley Act will not be required.

In addition, Section 107 of the JOBS Act provides that an emerging growth company can use the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. Given that we currently report and expect to continue to report under IFRS as issued by the IASB, we have irrevocably elected not to avail ourselves of this extended transition period and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required by the IASB. Since IFRS makes no distinction between public and private companies for purposes of compliance with new or revised accounting standards, the requirements for our compliance as a private company and as a public company are the same.

We are a foreign private issuer and, as a result, we are not subject to U.S. proxy rules and are subject to Exchange Act reporting obligations that, to some extent, are more lenient and less frequent than those of a U.S. domestic public company.

We report under the Exchange Act as a non-U.S. company with foreign private issuer status. Because we qualify as a foreign private issuer under the Exchange Act, we are exempt from certain provisions of the Exchange Act that are applicable to U.S. domestic public companies, including (i) the sections of the Exchange Act regulating the solicitation of proxies, consents or authorizations in respect of a security registered under the Exchange Act, (ii) the sections of the Exchange Act requiring insiders to file public reports of their share ownership and trading activities and liability for insiders who profit from trades made in a short period of time and (iii) the rules under the Exchange Act requiring the filing with the SEC of quarterly reports on Form 10-Q containing unaudited financial and other specified information, or current reports on Form 8-K, upon the occurrence of specified significant events. In addition, foreign private issuers are not required to file their annual report on Form 20-F until four months after the end of each fiscal year, while U.S. domestic issuers that are accelerated filers are required to file their annual report on Form 10-K within 75 days after the end of each fiscal year. Foreign private issuers are also exempt from the Regulation Fair Disclosure, aimed at preventing issuers from making selective disclosures of material information. As a result of the above, you may not have the same protections afforded to shareholders of companies that are not foreign private issuers.

We may lose our foreign private issuer status, which would then require us to comply with the Exchange Act's domestic reporting regime and cause us to incur significant legal, accounting and other expenses.

We are a foreign private issuer and therefore we are not required to comply with all of the periodic disclosure and current reporting requirements of the Exchange Act applicable to U.S. domestic issuers. If in the future we are not a foreign private issuer as of the last day of the second fiscal quarter in any fiscal year, we would be required to comply with all of the periodic disclosure, current reporting requirements and proxy solicitation rules of the Exchange Act applicable to U.S. domestic issuers. In order to maintain our current status as a foreign private issuer, either (a) a majority of our common shares must be either directly or indirectly owned of record by non-residents of the United States or (b)(i) a majority of our managing directors, supervisory board members and executive officers may not be United States citizens or residents, (ii) more than 50% of our assets cannot be located in the United States and (iii) our business must be administered principally outside the United States. If we were to lose this status, we would be required to comply with the Exchange Act reporting and other requirements applicable to U.S. domestic issuers, which are more detailed and extensive than the requirements for foreign private issuers. We may also be required to make changes in our corporate governance practices in accordance with various SEC and stock exchange rules. The regulatory and compliance costs to us if we are required to comply with the reporting requirements applicable to a U.S. domestic issuer may be significantly higher than the costs we would incur as a foreign private issuer. As a result, we expect that a loss of foreign private issuer status would increase our legal and financial compliance costs and would make some activities highly time consuming and costly. These rules and regulations could also make it more difficult for us to attract and retain qualified directors.

As a foreign private issuer and as permitted by the listing requirements of Nasdaq, we follow certain home country governance practices rather than the corporate governance requirements of Nasdaq.

We are a foreign private issuer. As a result, in accordance with the listing requirements of Nasdaq, we are relying on home country governance requirements and certain exemptions thereunder rather than relying on the corporate governance requirements of Nasdaq. In accordance with Dutch law and generally accepted business practices, our articles of association do not provide quorum requirements generally applicable to general meetings of shareholders. To this extent, our practice will vary from the requirement of Nasdaq Listing Rule 5620(c), which requires an issuer to provide in its bylaws for a generally applicable quorum, and that such quorum may not be less than one-third of the outstanding voting shares. Although we must provide shareholders with an agenda and other relevant documents for the general meeting of shareholders, Dutch law does not have a regulatory regime for the solicitation of proxies and the solicitation of proxies is not a generally accepted business practice in the Netherlands, thus our practice varies from the requirement of Nasdaq Listing Rule 5620(b). As permitted by the listing requirements of Nasdaq, we have also opted out of the requirements of (i) Nasdaq Listing Rule 5605(d), which requires, among other things, an issuer to have a compensation committee that consists entirely of independent directors and makes determinations regarding the independence of any compensation consultants, (ii) Nasdaq Listing Rule 5605(e), which requires independent director oversight of director nominations, and (iii) Nasdaq Listing Rule 5605(b), which requires an issuer to have a majority of independent directors on its board. In addition, we have opted out of shareholder approval requirements, as included in the Nasdaq Listing Rules, for the issuance of securities in connection with certain events such as the acquisition of shares or assets of another company, the establishment of or amendments to equity-based compensation plans for employees, a change of control of the Company and certain private placements. To this extent, our practice varies from the requirements of Nasdaq Rule 5635, which generally requires an issuer to obtain shareholder approval for the issuance of securities in connection with such events. Accordingly, you may not have the same protections afforded to shareholders of companies that are subject to these Nasdaq rules.

Insiders continue to have substantial control over us and could limit your ability to influence the outcome of key transactions, including a change of control.

Our principal shareholders, including certain of our managing directors, supervisory board members and executive officers and entities affiliated with them, in the aggregate, continue to beneficially own approximately 66.3% of outstanding common shares as at December 31, 2023. As a result, these shareholders, if acting together, are able to influence or control matters requiring approval by our general meeting of shareholders, including the election of managing directors and supervisory board members, changes to our articles of association and the approval of mergers or other extraordinary transactions. They may also have interests that differ from yours and may vote in a way with which you disagree, and which may be averse to your interests. The concentration of ownership may have the effect of delaying, preventing or deterring a change of control of our company, could deprive our shareholders of an opportunity to receive a premium for their common shares as part of a sale of our company and might ultimately affect the market price of our common shares.

We do not anticipate paying any cash dividends in the foreseeable future.

We currently intend to retain our future earnings, if any, for the foreseeable future, to repay indebtedness and to fund the development and growth of our business. We do not intend to pay any dividends to holders of our common shares. As a result, capital appreciation in the price of our common shares, if any, will be your only source of gain on an investment in our common shares.

If we do pay dividends, we may need to withhold tax on such dividends payable to holders of our shares in both Germany and the Netherlands.

We do not intend to pay any dividends to holders of our common shares. However, if we do pay dividends, we may need to withhold tax on such dividends both in Germany and the Netherlands. As an entity incorporated under Dutch law, any dividends distributed by us are subject to Dutch dividend withholding tax on the basis of Dutch domestic law. However, on the basis of the 2012 Convention between the Federal Republic of Germany and the Kingdom of the Netherlands for the avoidance of double taxation with respect to taxes on income (the "double tax treaty between Germany and the Netherlands"), the Netherlands will be restricted in imposing these taxes if we continue to be a tax resident of Germany and our place of effective management is in Germany. We may become taxable in a jurisdiction other than Germany and this may increase the aggregate tax burden on us." However, Dutch dividend withholding tax is still required to be withheld from dividends if and when paid to Dutch resident holders of our common shares (and non-Dutch resident holders of our common shares that have a permanent establishment in the Netherlands to which their shareholding is attributable). As a result, upon a payment (or deemed payment) of dividends, we will be required to identify our shareholders in order to assess whether there are Dutch residents (or non-Dutch residents with a permanent establishment in the Netherlands to which the common shares are attributable) in respect of which Dutch dividend tax has to be withheld. Such identification may not always be possible in practice. If the identity of our shareholders cannot be determined, withholding of both German and Dutch dividend tax may occur upon a payment of dividends.

Furthermore, the withholding tax restriction referred to above is subject to the applicability of the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting (the "MLI"). While Germany has enacted the MLI with effect as of April 1, 2021, it has, so far, refrained from initiating a notification procedure vis-à-vis the Netherlands as necessary under the rules of the MLI to set into force the rules of the MLI, and neither has the Netherlands notified the applicability of the MLI towards Germany. Only if Germany decides to change its reservation with respect to the tie-breaker provision (the "MLI Tie-Breaker Reservation") included in Article 4(3) of the 2012 Convention between the Federal Republic of Germany and the Kingdom of the Netherlands for the avoidance of double taxation with respect to taxes on income, and only if the applicability of the MLI has been mutually notified by Germany and the Netherlands, we may no longer be entitled anymore to any benefits of the double tax treaty between Germany and the Netherlands, including the withholding tax restriction, provided that Germany and the Netherlands do not reach an agreement on our tax residency for purposes of the double tax treaty between Germany and the Netherlands, except to the extent and in such manner as may be agreed upon by the authorities. As a result, any dividends distributed by us, during the period till when no such agreement has been reached between Germany and the Netherlands, may be subject to withholding tax both in Germany and the Netherlands.

We may become taxable in a jurisdiction other than Germany and this may increase the aggregate tax burden on us.

Since our incorporation we have had, on a continuous basis, our place of "effective management" in Germany. Therefore, we believe that we qualify as a tax resident of Germany based on German domestic law. As an entity incorporated under Dutch law, however, we also qualify as a tax resident of the Netherlands based on Dutch domestic law. However, based on our current management structure and the current tax laws of Germany and the Netherlands, as well as applicable income tax treaties, and current interpretations thereof, we believe that we are a tax resident solely in Germany for the purposes of the double tax treaty between Germany and the Netherlands due to the "effective management" tie-breaker. The test of "effective management" is largely a question of fact and degree based on all the circumstances, rather than a question of law. Nevertheless, the relevant case law and OECD guidance suggest that the Company is likely to be regarded as having become a German tax resident from incorporation and remaining so if, as the Company intends, (i) most meetings of its management board are held in Germany (and none are held in the Netherlands) with a majority of directors present in Germany for those meetings; (ii) at those meetings there are full discussions of, and decisions are made regarding, the key strategic issues affecting the Company and its subsidiaries; (iii) those meetings are properly minuted; (iv) at least some of the directors of the Company, together with supporting staff, are based in Germany; and (v) the Company has permanent staffed office premises in Germany. We may, however, become subject to limited income tax liability in other countries with regard to the income generated in the respective other country, for example, due to the existence of a permanent establishment or a permanent representative in such other country.

Our sole tax residency in Germany for purposes of the above-mentioned tax treaty is subject to the application of the provisions on tax residency as stipulated in such tax treaty as amended from time to time. The MLI, Germany and the Netherlands entered into, among other countries, should not, as of this date, affect such tax treaty's rules regarding tax residency.

The applicable tax laws, tax treaties or interpretations thereof may change, including the MLI choices and reservations. Furthermore, whether we have our place of effective management in Germany and are as such tax resident in Germany is largely a

question of fact and degree based on all the circumstances, rather than only a question of law, which facts and degree may also change. Changes to applicable tax laws, tax treaties or interpretations thereof and changes to applicable facts and circumstances (for example, a change of board members or the place where board meetings take place), or changes in the applicable tax treaties, including a change to the MLI, may result in us also becoming a tax resident of the Netherlands or another jurisdiction (other than Germany), potentially also triggering an exit liability in Germany. Therefore, our overall effective income tax rate and income tax expense could materially increase, which could have a material adverse effect on our business, results of operations, financial condition and prospects, which could cause our share price and trading volume to decline. However, if there is a double tax treaty between Germany and the respective other country, the double taxation of income may be reduced or avoided entirely.

Shareholders may not be able to exercise preemptive rights and, as a result, may experience substantial dilution upon future issuances of common shares or grants of rights to subscribe for common shares

In the event of an issuance of common shares or a grant of rights to subscribe for common shares, subject to certain exceptions, each shareholder will have a pro rata preemptive right in proportion to the aggregate nominal value of the common shares held by such holder. These preemptive rights may be restricted or excluded by a resolution of the general meeting of shareholders or by another corporate body designated by the general meeting of shareholders. Our management board is authorized, until June 30, 2028, to issue shares or grant rights to subscribe for shares up to our authorized share capital from time to time and to limit or exclude preemptive rights in connection therewith. This could cause existing shareholders to experience substantial dilution of their interest in us.

If equity and industry research analysts publish negative evaluations of or downgrade our common shares, the price of our common shares could decline.

The trading market for our common shares relies in part on the research and reports that equity and industry research analysts publish about us or our business. We do not control these analysts. If one or more of the analysts covering our business downgrade their evaluations of our common shares, the price of our common shares could decline. If one or more of these analysts cease to cover our common shares, we could lose visibility in the market for our common shares, which in turn could cause our common shares price to decline.

Our ability to use our net operating loss carryforwards and other tax attributes may be limited.

Our ability to utilize our net operating losses ("NOLs") is currently limited, and may be limited further, under Section 8c of the German Corporation Income Tax Act (*Körperschaftsteuergesetz*, the "KStG") and Section 10a of the German Trade Tax Act (*Gewerbesteuergesetz*, the "GewStG"). These limitations apply if a qualified ownership change, as defined by Section 8c KStG, occurs subject to certain exemptions, as described below.

Under current tax laws, tax loss carryforwards can generally be used for an unlimited period of time but any change of control in the Company – including as a result of a capital increase – could result in the expiry of such tax loss carryforwards and of any current year losses if, subject to further prerequisites, more than 50% of the subscribed capital or voting rights of the Company will be, directly or indirectly, transferred to an acquirer (including parties related to the acquirer constituting a group of acquirers with aligned interests) within five years or a comparable acquisition occurs. However, tax loss carryforwards and unused current losses taxable in Germany will not expire to the extent that they are covered by built-in gains of the Company that are taxable in Germany at the time of such acquisition (Stille-Reserven-Klausel, the "Hidden-Reserves Clause"). Further, any share transfer that would otherwise be subject to the loss forfeiture rule above does not result upon application in forfeiture of tax loss carryforwards and interest carryforwards resulting from current business operations of the Company, if the current business operations of the Company remained the same (i) from the time of its establishment; or (ii) during the last three business years prior to the share transfer and such business operations are maintained after the transfer (fortführungsgebundener Verlustvortrag). The determination of whether the business operations have been maintained is assessed on the basis of qualitative factors, such as the produced goods and services, target markets, customer and supplier bases, etc. However, the tax loss carryforwards will be forfeited in any circumstance if, after the share transfer, the business operations of the Company become dormant, are modified or substantially restructured, the Company becomes a partner in an operating partnership (Mitunternehmerschaft), the Company becomes a fiscal unity parent, or assets are transferred from the Company and recognized at a value lower than the fair market value. This requirement is monitored until the retained tax loss carryforwards have been fully utilized.

According to another appeal filed by the fiscal court of Hamburg dated August 29, 2017, Section 8c, paragraph 1, sentence 1 KStG is not in line with the German constitution. The appeal is still pending. It is unclear when the Federal Constitutional Court will

decide this case. According to statements in German legal literature, there are good reasons to believe that the Federal Constitutional Court may come to the conclusion that Section 8, paragraph 1, sentence 1 KStG is not in line with the German constitution.

As of December 31, 2023, we estimate unrecognized NOL carryforwards for German tax purposes of 152.8 million available which have not yet been assessed. However, we have not recognized a deferred tax asset for tax losses carried forward in our consolidated financial statements, see "Notes to the consolidated financial statements as of December 31, 2023 and 2022 and for the three years ended December 31, 2023, 2022 and 2021". Future changes in share ownership may also trigger an ownership change and, consequently, a Section 8c KStG or a Section 10a GewStG limitation. Any limitation may result in the expiration of a portion or the complete tax operating loss carryforwards before they can be utilized. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards to reduce German income tax may be subject to limitations, which could potentially result in increased future cash tax liability to us.

Although not free from doubt, we do not believe that we were a "passive foreign investment company," or a PFIC, for U.S. federal income tax purposes for 2023, there is a significant risk that we may be a PFIC for 2024 or one or more future taxable years. If we are a PFIC for any taxable year, U.S. shareholders may be subject to adverse U.S. federal income tax consequences.

Under the Internal Revenue Code of 1986, as amended (the "Code"), we will be a PFIC for any taxable year in which, after the application of certain "look-through" rules with respect to our subsidiaries, either (i) 75% or more of our gross income consists of passive income or (ii) 50% or more of the average value of our assets (generally determined on a quarterly basis) consists of assets that produce, or are held for the production of, "passive income." For purposes of the above calculations, we will be treated as if we hold our proportionate share of the assets of, and receive directly our proportionate share of the income of, any other corporation in which we directly or indirectly own at least 25%, by value, of the shares of such corporation. Passive income includes, among other things, dividends, interest, certain non-active rents and royalties, and investment gains. For these purposes cash is generally a passive asset. Goodwill is generally an active asset to the extent associated with business activities that produce active income.

Based on our current operations and composition of our income and assets, and certain estimates as to the value of our assets, we do not believe that we were a PFIC for our 2023 taxable year. However, there can be no assurance that the Internal Revenue Service (the "IRS") will agree with our conclusion. In addition, whether we will be a PFIC in 2024 or any future taxable year is uncertain because, among other things, (i) we currently own, and expect to continue to own, a substantial amount of passive assets, including cash, (ii) the value of our assets that generate non-passive income for PFIC purposes, including our goodwill and other intangible assets, is uncertain and may vary substantially over time (and may be determined, in part, by reference to our market capitalization, which has been, and may continue to be, volatile) and (iii) the composition of our income may vary substantially over time. Accordingly, there can be no assurance that we will not be a PFIC for any taxable year. For example, if we raise additional cash, or if our market capitalization continues to decline or fluctuate (and the value of our assets were determined in part by reference to our market capitalization), then there is a significant risk that we could be a PFIC for 2024, depending on the composition and average value of our assets for 2024 (which cannot be determined until after 2024).

If we are a PFIC for any taxable year during which a U.S. investor holds our common shares, we will continue to be treated as a PFIC with respect to that U.S. investor for all succeeding years during which the U.S. investor holds our common shares, even if we cease to meet the threshold requirements for PFIC status, unless certain exceptions apply. Such a U.S. investor may be subject to adverse U.S. federal income tax consequences, including (i) the treatment of all or a portion of any gain on disposition as ordinary income, (ii) an additional tax liability representing deferred interest charge on such gain and the receipt of certain dividends and (iii) compliance with certain reporting requirements. We do not intend to provide the information that would enable investors to make a qualified electing fund election (a "QEF Election") that would result in alternative U.S. federal income tax treatment if we are a PFIC for a taxable year.

If a U.S. person is treated as owning 10% or more of our stock by vote or value, such person may be subject to adverse U.S. federal income tax consequences.

If a U.S. person is treated as owning (directly, indirectly or constrictively) 10% or more of our stock by value or voting power, such person generally will be treated as a "United States shareholder" with respect to each "controlled foreign corporation" (a "CFC") in our group. A CFC is a non-U.S. corporation more than 50% of the stock (by voting power or value) of which is owned (directly, indirectly, or constructively) by "United States shareholders." We have not determined whether we are a CFC. However, even if we are not a CFC, under certain ownership attribution rules our non-U.S. subsidiaries could be treated as owned by our U.S. subsidiary and thus may be treated as CFCs. A United States shareholder of a CFC that owns directly or indirectly the CFC's stock may be subject to additional U.S. federal income tax liabilities and reporting requirements. We do not intend to furnish to any

information that may be necessary for United States shareholders, if any, to comply with the CFC rules. U.S. investors that may be treated for purposes of the CFC rules as owning 10% of our stock by voting power or value should consult their tax advisers regarding the potential application of these rules in their particular circumstances.

We are a Dutch public company. The rights of our shareholders are different from the rights of shareholders in companies governed by the laws of U.S. jurisdictions and may not protect investors in a similar fashion afforded by incorporation in a U.S. jurisdiction.

We are a Dutch public company (*naamloze vennootschap*) organized under the laws of the Netherlands. Our corporate affairs are governed by our articles of association and by the laws governing companies incorporated in the Netherlands. However, there can be no assurance that Dutch law will not change in the future or that it will serve to protect investors in a similar fashion afforded under corporate law principles in the United States, which could adversely affect the rights of investors.

The rights of shareholders and the responsibilities of managing directors and supervisory board members may be different from the rights and obligations of shareholders and board members in companies governed by the laws of U.S. jurisdictions. In the performance of their duties, our managing directors and supervisory directors are required by Dutch law to consider the interests of our company, its shareholders, its employees and other stakeholders, in all cases with due observation of the principles of reasonableness and fairness. It is possible that some of these parties will have interests that are different from, or in addition to, your interests as a shareholder.

Provisions of our articles of association or Dutch corporate law might deter acquisition bids for us that might be considered favorable and prevent, delay or frustrate any attempt to replace or remove the members of our management board or supervisory board.

Under Dutch law, various protective measures are possible and permissible within the boundaries set by Dutch law and Dutch case law. In this respect, certain provisions of our articles of association may make it more difficult for a third party to acquire control of us or effect a change in our management board and supervisory board. These include:

- a provision that our managing directors and supervisory directors are appointed on the basis of a binding nomination prepared by our supervisory board which can only be overruled by a two-thirds majority of votes cast representing more than 50% of our issued share capital;

- a provision that our managing directors and supervisory directors may only be dismissed by the general meeting of shareholders by a two-thirds majority of votes cast representing more than 50% of our issued share capital, unless the dismissal is proposed by the supervisory board in which case a simple majority of the votes would be sufficient;

- a provision allowing, among other matters, the former chairperson of our supervisory board to manage the supervision of our affairs if all of our supervisory directors are dismissed and to appoint others to be charged with the supervision of our affairs, including the preparation of a binding nomination for our managing directors and supervisory directors as discussed above, until new supervisory directors are appointed by the general meeting on the basis of such binding nomination); and

- a requirement that certain matters, including an amendment of our articles of association, may only be brought to our shareholders for a vote upon a proposal by our management board with the approval of our supervisory board.

Dutch law also allows for staggered multi-year terms of our managing directors and supervisory directors and as a result, only part of our managing directors and supervisory directors may be subject to appointment or re-appointment in any given year.

Furthermore, in accordance with the Dutch Corporate Governance Code, or DCGC, shareholders who have the right to put an item on the agenda for our general meeting or to request the convening of a general meeting shall not exercise such rights until after they have consulted our management board. If exercising such rights may result in a change in our strategy (for example, through the dismissal of one or more of our managing directors or supervisory directors), our management board must be given the opportunity to invoke a reasonable period of up to 180 days to respond to the shareholders' intentions. If invoked, our management board must use such response period for further deliberation and constructive consultation, in any event with the shareholder(s) concerned and exploring alternatives. At the end of the response time, our management board, supervised by our supervisory board, shall report on this consultation and the exploration of alternatives to our general meeting. The response period may be invoked only once for any

given general meeting and shall not apply (i) in respect of a matter for which a response period has been previously invoked or (ii) if a shareholder holds at least 75% of our issued share capital as a consequence of a successful public bid.

Moreover, our management board, with the approval of our supervisory board, can invoke a cooling-off period of up to 250 days when shareholders, using their right to have items added to the agenda for a general meeting or their right to request a general meeting, propose an agenda item for our general meeting to dismiss, suspend or appoint one or more managing directors or supervisory directors (or to amend any provision in our articles of association dealing with those matters) or when a public offer for our company is made or announced without our support, provided, in each case, that our management board believes that such proposal or offer materially conflicts with the interests of our company and its business. During a cooling-off period, our general meeting cannot dismiss, suspend or appoint managing directors and supervisory directors (or amend the provisions in our articles of association dealing with those matters) except at the proposal of our management board. During a cooling-off period, our management board must gather all relevant information necessary for a careful decision-making process and at least consult with shareholders representing 3% or more of our issued share capital at the time the cooling-off period was invoked, as well as with our Dutch works council (if we or, under certain circumstances, any of our subsidiaries would have one). Formal statements expressed by these stakeholders during such consultations must be published on our website to the extent these stakeholders have approved that publication. Ultimately, one week following the last day of the cooling-off period, our management board must publish a report in respect of its policy and conduct of affairs during the cooling-off period on our website. This report must remain available for inspection by shareholders and others with meeting rights under Dutch law at our office and must be tabled for discussion at the next general meeting. Shareholders representing at least 3% of our issued share capital may request the Enterprise Chamber of the Amsterdam Court of Appeal, or the Enterprise Chamber (*Ondernemingskamer*), for early termination of the cooling-off period. The Enterprise Chamber must rule in favor of the request if the shareholders can demonstrate that:

- our management board, in light of the circumstances at hand when the cooling-off period was invoked, could not reasonably have concluded that the relevant proposal or hostile offer constituted a material conflict with the interests of our company and its business;

- our management board cannot reasonably believe that a continuation of the cooling-off period would contribute to careful policy-making; or

- other defensive measures, having the same purpose, nature and scope as the cooling-off period, have been activated during the cooling-off period and have not since been terminated or suspended within a reasonable period at the relevant shareholders' request (i.e., no 'stacking' of defensive measures).

We are not obligated to, and do not, comply with all best practice provisions of the Dutch Corporate Governance Code.

As a Dutch public company, we are subject to the DCGC. The DCGC contains both principles and best practice provisions on corporate governance that regulate relations between the management board, the supervisory board and the shareholders and matters in respect of financial reporting, auditors, disclosure, compliance and enforcement standards. The DCGC is based on a "comply or explain" principle. Accordingly, companies are required to disclose in their annual reports, filed in the Netherlands, whether they comply with the provisions of the DCGC. If a company does not comply with those provisions (for example, because of a conflicting Nasdaq requirement), that company is required to give the reasons for such non-compliance. The DCGC applies to Dutch companies listed on a government-recognized stock exchange, whether in the Netherlands or elsewhere, including Nasdaq. We do not comply with all best practice provisions of the DCGC. This may affect your rights as a shareholder, and you may not have the same level of protection as a shareholder in a Dutch company that fully complies with the DCGC.

If our disclosure metrics relating to climate change and other sustainability topics are lower than those of our peers, this may lead to reputational risk or other financial repercussions.

Directive (EU) 2022/2464 of the European Parliament and of the Council of December 14, 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/ EU, as regards corporate sustainability reporting, or the CSRD, entered into force on January 5, 2023 and will apply to our financial and sustainability reporting as of the financial year 2025. The CSRD has been designed to strengthen the disclosure rules regarding social and environmental information and seeks to provide investors and other stakeholders with access to the information they need to assess investment risks arising from climate change and other sustainability topics. The CSRD requires us to have an audit of the sustainability information that we report on. If our disclosure metrics relating to climate change and other sustainability topics are lower than those of our peers in the industry, this

may lead to reputational risk which may lead to onward financial repercussions such as a decrease in share price or difficulty in raising capital.]

Dutch and European insolvency laws are substantially different from U.S. insolvency laws and may offer our shareholders less protection than they would have under U.S. insolvency laws.

We are subject to Dutch insolvency laws in the event any insolvency proceedings are initiated against us, including, among other laws and regulations, Regulation (EU) 2015/848 of the European Parliament and of the Council of May 20, 2015 on insolvency proceedings. Should a court in another Member State of the European Union determine that our center of main interests (COMI) is situated in that Member State, the courts in that Member State will in principle have jurisdiction over the insolvency proceedings initiated against us and the insolvency laws of that Member State will in principle apply to us, in accordance with and subject to such the aforementioned Regulation and the rules promulgated thereunder. Insolvency laws in the Netherlands or the relevant other Member State of the European Union, as applicable, may offer our shareholders less protection than they would have under U.S. insolvency laws and make it more difficult for our shareholders to recover the amount they could expect to recover in a liquidation or restructuring under U.S. insolvency laws.

Our share price might fluctuate, and as a result, you could lose a significant part of your investment.

The market price of our common shares may fluctuate significantly in response to numerous factors, many of which are beyond our control, including:

- financial analysts ceasing to cover our common shares or changes in financial estimates by analysts;
- actual or anticipated variations in our operating results;
- changes in financial estimates by financial analysts, or any failure by us to meet or exceed any of these estimates, or changes in the recommendations of any financial analysts that elect to follow our common shares or the shares of our competitors;
- announcements by us or our competitors of significant contracts or acquisitions;
- future sales of our shares; and
- investor perceptions of us and the industries in which we operate.

In addition, the stock market in general has experienced substantial price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of particular companies affected. These broad market and industry factors may materially harm the market price of our common shares, regardless of our operating performance. In the past, following periods of volatility in the market price of certain companies' securities, securities class action litigation has been instituted against these companies. This litigation, if instituted against us, could adversely affect our financial condition or results of operations.

Investors may have difficulty enforcing civil liabilities against us or the members of our management board and supervisory board.

We are organized and existing under the laws of the Netherlands. As such, under Dutch private international law, the rights of our shareholders vis-à-vis the Company originating from Dutch corporate law and our articles of association, as well as the civil liability of our officers (functionarissen) (including our managing directors, supervisory directors and executive officers) are governed in certain respects by the laws of the Netherlands.

We are not a resident of the United States and our officers may also not all be residents of the United States. As a result, depending on the subject matter of the action brought against us and/or our officers, United States courts may not have jurisdiction. If a Dutch court has jurisdiction with respect to such action, that court will apply Dutch procedural law and Dutch private international law to determine the law applicable to that action. Depending on the subject matter of the relevant action, a competent Dutch court may apply another law than the laws of the United States.

Also, service of process against non-residents of the United States can in principle (absent, for example, a valid choice of domicile) not be effected in the United States.

As of the date of this Annual Report, (i) there is no treaty in force between the United States and the Netherlands for the reciprocal recognition and enforcement of judgments, other than arbitration awards, in civil and commercial matters and (ii) both the Hague Convention on Choice of Court Agreements (2005) and the Hague Judgments Convention (2019) have entered into force for the Netherlands, but have not entered into force for the United States. Consequently, a judgment rendered by a court in the United States will not automatically be recognized and enforced by the competent Dutch courts. However, if a person has obtained a judgment rendered by a court in the United States that is enforceable under the laws of the United States and files a claim with the competent Dutch court, the Dutch court will in principle give binding effect to that United States judgment if (i) the jurisdiction of the United States court was based on a ground of jurisdiction that is generally acceptable according to international standards, (ii) the judgment by the United States court was rendered in legal proceedings that comply with the Dutch standards of proper administration of justice including sufficient safeguards (behoorlijke rechtspleging), (iii) binding effect of such United States judgment is not contrary to Dutch public order (openbare orde) and (iv) the judgment by the United States court is not incompatible with a decision rendered between the same parties by a Dutch court, or with a previous decision rendered between the same parties by a foreign court in a dispute that concerns the same subject and is based on the same cause, provided that the previous decision qualifies for recognition in the Netherlands. Even if such a United States judgment is given binding effect, a claim based thereon may, however, still be rejected if the U.S. judgment is not or no longer formally enforceable. Moreover, if the United States judgment is not final (for instance when appeal is possible or pending) a competent Dutch court may postpone recognition until the United States judgment will have become final, refuse recognition under the understanding that recognition can be asked again once the United States judgment will have become final, or impose as a condition for recognition that security is posted.

A competent Dutch court may deny the recognition and enforcement of punitive damages or other awards. Moreover, a competent Dutch court may reduce the amount of damages granted by a United States court and recognize damages only to the extent that they are necessary to compensate actual losses or damages. Finally, there may be specific other instances, including pursuant to anti-boycott rules and regulations, where Dutch law prohibits the recognition and enforcement of a United States judgment. Thus, United States investors may not be able, or experience difficulty, to enforce a judgment obtained in a United States court against us or our officers.

The United States and Germany currently do not have a treaty providing for the reciprocal recognition and enforcement of judgments, in civil and commercial matters. Consequently, a final judgment for payment or declaratory judgments given by a court in the United States, whether predicated solely upon U.S. securities laws, would not automatically be recognized or enforceable in Germany. German courts may deny the recognition and enforcement of a judgment rendered by a U.S. court if they consider the U.S. court not to be competent or the decision to be in violation of German public policy principles. For example, judgments awarding punitive damages are generally not enforceable in Germany. A German court may reduce the number of damages granted by a U.S. court and recognize damages only to the extent that they are necessary to compensate actual losses or damages.

In addition, actions brought in a German court against us, our managing directors, our supervisory board members, our senior management and the experts named herein to enforce liabilities based on U.S. federal securities laws may be subject to certain restrictions. German courts generally do not award punitive damages. Litigation in Germany is also subject to rules of procedure that differ from the U.S. rules, including with respect to the taking and admissibility of evidence, the conduct of the proceedings and the allocation of costs. German procedural law does not provide for pre trial discovery of documents, nor does Germany support pre trial discovery of documents under the 1970 Hague Evidence Convention. Proceedings in Germany would have to be conducted in the German language and all documents submitted to the court would, in principle, have to be translated into German. For these reasons, it may be difficult for a U.S. investor to bring an original action in a German court predicated upon the civil liability provisions of the U.S. federal securities laws against us, our managing directors, our supervisory board members, our senior management and the experts named in this Annual Report.

Based on the foregoing, there can be no assurance that U.S. investors will be able to enforce against us or management board members, supervisory board members and executive officers or certain experts named herein who are residents of or possessing assets in the Netherlands, Germany, or other countries other than the United States any judgments obtained in U.S. courts in civil and commercial matters, including judgments under the U.S. federal securities..

3. Information on the Company

A. History and Development of the Company

Centogene was founded by our former CEO, Prof. Arndt Rolfs, in 2006 in Rostock, Germany. In connection with our initial public offering ("IPO"), which closed on November 12, 2019, we executed a corporate reorganization whereby Centogene B.V., which was incorporated on October 11, 2018, was converted into Centogene N.V. and Centogene N.V. became the holding company for Centogene AG, which remains our principal operating subsidiary. Centogene N.V. is a Dutch public company (*naamloze vennootschap*) organized under the laws of the Netherlands and our legal and commercial name is Centogene N.V.

On January 31, 2022, pursuant to a securities purchase agreement and a warrant agreement, each signed with certain investors, we received EUR 15.0 million as consideration for the issuance by us of an aggregate of 4,479,088 common shares at a price per share of $3.73 and warrants initially exercisable for the purchase of up to an aggregate of 1,343,727 additional common shares at an initial exercise price per common share of $7.72. The warrants are exercisable immediately as of the date of issuance and will expire on December 31, 2026.

Our principal executive offices are located at Am Strande 7, 18055 Rostock, Germany and our additional offices are in Berlin (Germany), Cambridge (Massachusetts, United States), Vienna (Austria), Dubai (United Arab Emirates), Delhi (India), and Zug (Switzerland). The office located in Vienna (Austria) was closed in 2023. Since November 7, 2019, our common shares have traded on Nasdaq under the symbol "CNTG." Our agent for service of process in the United States is Cogency Global, located at 10 East 40th Street, 10th Floor, New York, NY 10016.

We are an emerging growth company and as such, we are eligible to, and intend to, take advantage, for up to five years, of certain exemptions from various reporting requirements applicable to other public companies that are not Emerging Growth Companies, such as not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002. As a result of the Transaction described in Note 29 to the Consolidated Financial Statements, the Company was delisted and therefore compliance with Section 404 of the Sarbanes-Oxley Act will not be required.

We will remain an emerging growth company until the earliest of: (i) the last day of our fiscal year during which we have total annual gross revenues of at least $1.235 billion; (ii) the last day of our fiscal year following the fifth anniversary of the closing of our IPO which is December 31, 2024; (iii) the date on which we have, during the previous three-year period, issued more than $1.0 billion in non-convertible debt; (iv) the date on which we are deemed to be a Large Accelerated Filer under the Exchange Act, with at least $700 million of equity securities held by non-affiliates.

Our capital expenditures for 2023, 2022 and 2021 amounted to EUR 2,279 thousand, EUR 2,094 thousand and EUR 5,702 thousand, respectively. These expenditures were primarily for property, plant and equipment and intangible assets.

The SEC maintains an Internet website that contains reports and other information about issuers, like us, that file electronically with the SEC. The address of that website is www.sec.gov. Our website can be found at www.centogene.com. The information on our website is not incorporated by reference into this Annual Report, and you should not consider information contained on our website or any websites mentioned in this Annual Report to be part of this Annual Report.

B. Business Overview

We provide data-driven answers to patients, physicians, and pharmaceutical companies for rare and neurodegenerative diseases. We integrate multiomic technologies with the CENTOGENE Biodatabank – enabling a comprehensive analysis to guide precision medicine. Our unique approach enables rapid and reliable diagnosis for patients, supports a more precise physician understanding of disease states, and accelerates and de-risks targeted pharmaceutical drug discovery, development, and commercialization.

Since our founding in 2006, Centogene has been offering rapid and reliable diagnosis – building a network of approximately 30,000 active physicians. Our ISO, CAP, and CLIA certified multiomic reference laboratories in Germany utilize phenomic, genomic, transcriptomic, epigenomic, proteomic, and metabolomic datasets. This data is captured in our CENTOGENE Biodatabank, with approximately 850,000 patients represented from over 120 highly diverse countries, over 70% of whom are of non-European descent. To date, we have diagnosed over 2,500 different rare diseases and the CENTOGENE Biodatabank has contributed to generating novel insights for more than 300 peer-reviewed publications.

By translating our data and expertise into tangible insights, we have already supported 48 collaborations with pharmaceutical partners, as of December 31, 2023. Together, we accelerate and de-risk drug discovery, development, and commercialization in target and drug screening, clinical development, market access and expansion, as well as offering CENTOGENE Biodatabank Licenses and Insight Reports to enable a world healed of all rare and neurodegenerative diseases.

A rare disease, by definition in the United States, is a disease that affects 200,000 or fewer people. However, with over 7,000 currently identified rare diseases, they in aggregate affect more than 350 million people globally. Rare diseases can be severe and on average, it takes six to eight years for a patient with a rare disease to be diagnosed. This underscores the significant unmet need for high-quality genetic or other information in the rare disease space for the early identification and effective treatment of patients. Despite legislative initiatives and continued investment in rare disease drug development, significant unmet needs still exist. Of the 7,000 identified rare diseases, it is estimated that 80%, or 5,600, have a genetic origin, and of these rare hereditary diseases, less than 5%, have an FDA approved treatment. The introduction of new treatments and development of cost-effective drugs are constrained by a number of factors, including a lack of high-quality information regarding the clinical heterogeneity of medical symptoms, lack of comprehensive and curated medical data, difficulties in the early identification of patients, lack of biomarkers, and difficulties in understanding market size and epidemiology.

Our business is comprised of solutions for both physicians and their patients, as well as biopharma/pharmaceutical companies, including via collaborations with Contract Research Organizations ("CROs"). Our diagnostic solutions typically start with specialist physicians requesting diagnostic information to identify or confirm a rare disease by sending us their patients' blood samples on our proprietary, CE-marked DBS collection kit, CentoCard, or other biological samples, such as ethylenediaminetetraacetic acid (EDTA) blood, buccal swabs, saliva, ready-to-use DNA, formalin-fixed paraffin-embedded (FFPE) tissue specimens, and cell-free DNA (cfDNA). With highly advanced technology, the CENTOGENE Biodatabank, and our team of medical experts, we then deliver reports back to the physicians that contain what we believe is critical information containing genetic and/or multiomic information, depending on what is most salient for each case. We also input this data into the CENTOGENE Biodatabank, which contributes to improved diagnostics and health outcomes, as well as enables the development of treatments.

For our pharmaceutical partners, we are able to provide various valuable information using our platform. For instance, with the access to the data in our repository and biomaterials in the CENTOGENE Biodatabank, we have successfully developed biomarkers by applying highly sophisticated tools, including mass spectrometry technologies, together with artificial intelligence ("AI") capabilities in an efficient and cost-effective manner. Biomarkers are important in orphan drug development as well as post commercialization monitoring by demonstrating the efficacy of existing and new drugs, performing longitudinal monitoring, and informing necessary titration for individual rare disease patients. Newly identified biomarkers may also have the potential to become validated disease modifiers – opening up opportunities for new therapeutic approaches. As of December 31, 2023, we have developed and capitalized six biomarkers covering three diseases (aromatic l-amino acid decarboxylase (AADC) deficiency, Gaucher disease, and amyloid transthyretin (ATTR) amyloidosis). We have also commercialized many biomarkers as laboratory developed tests.

In December 2018, the FDA issued a statement that supports the use of real-world evidence to accelerate drug development and to monitor the safety of drugs after they have been commercialized. Moreover, in February 2019, the FDA also issued a revised draft guidance for drug discovery in rare diseases, including a discussion of the benefits of using biomarkers as surrogate endpoints (the outcomes of which can be measured against therapy effectiveness in clinical trials). We believe that this guidance from the FDA, acknowledging the benefits of the use of both real-world evidence and biomarkers, further validates the value of our global proprietary rare disease platform and our biomarkers.

We historically have offered solutions to our customers through two business segments. In addition, the COVID-19 pandemic, which began in December 2019, resulted in our recognizing, as of the beginning of Q3 2020, a separate reportable segment comprising our COVID-19 business, which was discontinued in March 2022. Our historical business segments – Pharmaceutical and Diagnostics – are our core business segments. Our Pharmaceutical segment provides a variety of products and services to our pharmaceutical partners, including target and drug screening, clinical development, market access and expansion, as well as CENTOGENE Biodatabank Licenses and Insight Reports. Our information platforms, access to rare and neurodegenerative disease patients and their biomaterials, and our ability to develop proprietary technologies, such as biomarkers, enable us to provide services to our pharmaceutical partners in all phases of the drug development process as well as post commercialization. Revenues in our Pharmaceutical segment are generated primarily from collaboration agreements with our pharmaceutical partners, which are structured on a fee per analysis basis, milestone basis, fixed fee basis, royalty basis, or a combination of these. For the year ended December 31, 2023, EUR 14,802 thousand, or 30.5%, of our total revenues were derived from our Pharmaceutical segment. For the year ended December 31, 2022, EUR 16,115 thousand, or 33.9%, of our total revenues were derived from our Pharmaceutical segment. For the

year ended December 31, 2021, EUR 15,641 thousand, or 37.0%, of our total revenues were derived from our Pharmaceutical segment.

Our Diagnostics segment provides targeted genetic sequencing and diagnostic services to patients through our distribution partners and clients, who are typically physicians, labs, or hospitals. Since our inception in 2006, we have been spearheading advanced diagnostic solutions using enhanced technologies and techniques applied across multiple analysis. As of December 31, 2023, we believe we offer the broadest diagnostic testing portfolio for rare diseases, covering over 19,000 genes using approximately 5,000 different tests, the latter reflecting the portfolio simplification Centogene implemented within 2022.

In 2022, we launched our commercially available multiomic testing portfolio, CENTOGENE MOx – a portfolio of single-step multiomic solutions that enable early diagnosis, improved prognosis, and precision medicine. In October 2023, the Company announced the expansion of MOx, now incorporating transcriptomic analysis. CENTOGENE's MOx 2.0 is a single-step multiomic solution that combines DNA sequencing, biochemical testing, and RNA sequencing to provide physicians with the most comprehensive testing capability.

In January 2022, we launched CentoCloud, our cloud-based Software as a Service (SaaS) platform that enables laboratories around the world to analyze, interpret, and report genomic variants for rare disease diagnostics. Generating medical reports of diagnostic analyses is resource intensive – requiring an extensive amount of bioinformatic expertise, a sizeable databank of patient samples, and a streamlined recording system. Furthermore, as a trend, an increasing number of laboratories around the world are responding to regional requirements for increasing the amount of genetic sequencing being performed locally. This modular dry lab solution, powered by proven bioinformatic pipelines and the CENTOGENE Biodatabank, helps overcome these obstacles to make rare disease diagnostics accessible around the world. In May 2022, CentoCloud was CE-marked under the In Vitro Diagnostics Directive (98/79/EC). CE-marking is required for all in vitro diagnostic (IVD) devices to be placed in the European Economic Area (EEA) countries, as well as Iceland, Norway, and Liechtenstein, and indicates that the device may be legally commercialized in this area. CentoCloud is one of the world's only CE-marked IVD software for genomic diagnostics.

In April 2023, the Company launched its FilterTool, an advanced web-based application for genetic data interpretation. The new FilterTool application integrates with CentoCloud® as an accessory and enables laboratories, medical experts, and bioinformaticians to efficiently display, filter, select, and classify relevant genetic variants identified by Next Generation Sequencing (NGS) data analysis. This allows CentoCloud® users to visualize key genetic variants of concern for any given patient.

In April 2023, the Company also launched NEW CentoGenome®, an enhanced Next Generation Sequencing (NGS)-based assay. Healthcare professionals can leverage NEW CentoGenome to provide more comprehensive diagnostic information, which could accelerate access to potential treatment options. Serving as a first-line test, NEW CentoGenome is the most comprehensive commercially available Whole Genome Sequencing (WGS) test on the market for both rare and neurodegenerative disorders – covering almost all disease-causing variants, including the most relevant repeat expansions associated with neurological diseases, in a single assay. NEW CentoGenome also detects Copy Number Variations (CNVs) associated with Spinal Muscular Atrophy (SMA), as well as complex disease-causing variants associated with Gaucher Disease (GD) and susceptibility to GBA1-related Parkinson's Disease (PD), with the highest levels of sensitivity.

On June 26, 2023, the Company entered into a joint venture agreement (the "Joint Venture Agreement") with Pharmaceutical Investment Company ("PIC" or "Lifera") – refer to Note 15 to the Consolidated Financial Statements for further detail. For the year ended 2023, we reported a loss of EUR 302k (2022: nil) from the JV.

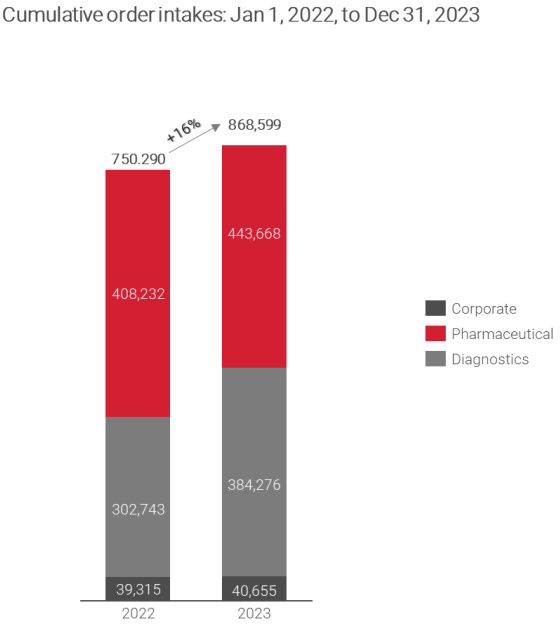
Revenues from our Diagnostics segment are typically generated by set fees per diagnostic test or per bundle of diagnostic tests under contracts with our clients. For the year ended December 31, 2023, EUR 33,734 thousand, or 69.5%, of our total revenues were derived from our diagnostics segment. For the year ended December 31, 2022, EUR 31,358 thousand, or 66.1%, of our total revenues were derived from our diagnostics segment. For the year ended December 31, 2021, €26,593 thousand, or 63.0%, of our total revenues were derived from our diagnostics segment.

We continuously work on expanding our medical and genetic knowledge of rare and neurodegenerative genetic diseases. We work with renowned international scientific and academic institutions on a variety of groundbreaking research projects involving a significant number of patients.

The test requests that we receive from our customers in our Pharmaceutical segment, our Diagnostics segment, as well as from research projects yield a rich collection of genetic and biochemical data, which is used to map out phenotype-genotype correlations and continuously enrich and improve the quality of the CENTOGENE Biodatabank.

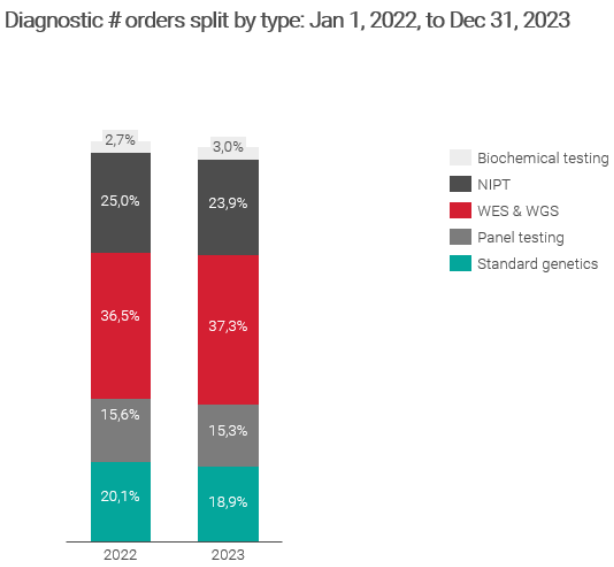
For the year ended December 31, 2023, we received over 118,309 test requests in total for both our Pharmaceutical and Diagnostics segments, as well as for our internal research projects – bringing the total number of test requests received in the period from January 1, 2022, to December 31, 2023, to approximately 229,099. Compared to the total number of patients in the CENTOGENE Biodatabank as of December 31, 2023, this shows that approximately 26% of our data and biomaterials came from the last two years, which is an important factor when it comes to recruiting patients for clinical trials and clinical studies, considering the often shorter average life expectancy of rare disease patients.

The graphic below shows the cumulative test requests for the Diagnostic and Pharmaceutical segments (JV segment is not included as no business is running through it yet), as well as test requests received for our internal research projects during the period from January 1, 2022 to December 31, 2023. The testing expenses relating to requests received for our internal research projects were included in Corporate as they did not generate any revenue and cannot be allocated to either of our business segments.



For the portion of the Pharmaceutical, Diagnostics, and Corporate tests, for which we have optional research consent from the patients in the CENTOGENE Biodatabank, we are able to re-test their biomaterials.

The graphic below shows the cumulative 150,776 test requests received from our Diagnostics segment in the period from January 1, 2022 to December 31, 2023, split by different type of analysis.



"Standard genetic" testing includes our single gene, CNV, and mutation quantification products.

From our inception in 2006, Centogene has been focused on delivering data-driven solutions to rare and neurodegenerative disease patients. Our laboratory at our headquarters in Rostock, Germany, is equipped with the most advanced technologies from thirteen different diagnostic platforms, and as of December 31, 2023, together employ more than 493 highly qualified personnel (including consultants) from over 61 nationalities. In addition to our laboratories, we have sales and administrative offices located in Berlin (Germany), Dubai (United Arab Emirates), Delhi (India), and Zug (Switzerland), allowing us to further expand our international footprint. The administrative office located in Vienna (Austria) and the laboratory located in Cambridge (United States) were closed in 2023.

Strategy for the Group

Our strategic objective is to be the essential life science partner for data-driven answers in rare and neurodegenerative diseases (refer to 7.4). We aim to translate our data and expertise into tangible insights to establish rapid and reliable diagnostics and accelerate and de-risk drug discovery, development, and commercialization in target and drug screening, clinical development, and market access and expansion.

To achieve this objective, our strategy is to:

- **Transform the rare and neurodegenerative disease landscape by applying precision medicine more comprehensively.** Rare and neurodegenerative diseases affect patients of all ages and ethnicities across the world. We are focused on creating broader awareness of the challenges these patients and their families face, including the lack of accurate and up-to-date diagnostic solutions and effective therapies. We leverage our global network to access patient populations of varying demographics and continue to expand our existing data repository. We believe this central source of knowledge will allow us to apply precision medicine more comprehensively, which will enable more accurate diagnosis as well as support the more efficient discovery and development of new treatment solutions for rare and neurodegenerative disease patients.

- **Further our leadership position in rare and neurodegenerative diseases and continue to build upon our data in the CENTOGENE Biodatabank.** Since our Company's founding in 2006, we have been focused on collecting clinical,

phenotypic and genomic data for patients with rare hereditary diseases. We plan to continue growing this repository of information and biological samples through the identification of additional patients by expanding our clinical network, which will facilitate more effective drug development. This synergistic model will allow us to maintain our competitive advantage of having what we believe is the world´s largest real-world integrated multiomic data repository in rare and neurodegenerative diseases.

- **Accelerate drug discovery, development, and commercialization for new and existing pharmaceutical partners.** We believe we are uniquely positioned to support pharmaceutical partners along every stage of the pipeline, from target and drug screening to clinical development to market access and expansion. By leveraging insights generated from the CENTOGENE Biodatabank, multiomic technologies, and deep rare disease expertise, we are shifting the paradigm to transform data into tangible solutions – bringing speed and efficiency to our pharmaceutical partners' drug discovery, development, and commercialization. We also offer CENTOGENE Biodatabank Licenses and Insight Reports, a portfolio of customizable data-driven solutions to enable partners to securely access unique real-world data sets and tailored data analysis reports. We believe this accelerates bringing life-changing treatment solutions to rare and neurodegenerative disease patients. In the most attractive areas, we may establish and pursue our own discovery programs or co-invest into partnered programs. This includes the building of digital representations of diseases.

Rare Disease Overview

Overview

The Rare Diseases Act of 2002 defines a rare disease as having a prevalence of fewer than 200,000 affected individuals in the United States. In the European Union, orphan drug designation is intended to promote the development of drugs for the diagnosis, prevention, or treatment of life-threatening or chronically debilitating conditions affecting not more than one in 2,000 persons in the European Union and for which no satisfactory method of diagnosis, prevention, or treatment has been authorized (or the product would be a significant benefit to those affected).

The National Institutes of Health lists more than 7,000 disorders that qualify as rare diseases. A wide range of conditions qualify as a rare disease and include, but are not limited to:

- Lysosomal storage disorders, such as Gaucher disease, Fabry disease, Pompe disease, mucopolysaccharidosis disorders, Farber disease, Niemann-Pick disease, and metachromatic leukodystrophy;

- Neurologic and neuromuscular disorders, such as Huntington's disease, spinal muscular atrophy, Duchenne muscular dystrophy, and neuronal ceroid-lipofuscinosis type 2; and

- Non-malignant hematological disorders, such as paroxysmal nocturnal hemoglobinuria, atypical hemolytic uremic syndrome, hemophilia, and hemoglobinopathies, such as sickle cell disease and β-thalassemia.

According to research published in the *European Journal of Human Genetics* in September 2019, a conservative, evidence-based estimate for the population prevalence of rare diseases is 3.5-5.9%, which equates to 263 to 446 million people affected globally at any point in time. According to the International Rare Diseases Research Consortium, there were over 800 new rare diseases identified between 2010 and 2019.

Causes of Rare Diseases

While there are many causes of rare diseases, approximately 5,600 are due to genetic mutations which are hereditary. To date, there are estimated to be approximately 4,700 rare genetic diseases that can be diagnosed by diagnostic sequencing tools. Despite these advancements in science and availability of Next Generation Sequencing ("NGS") technologies, rare diseases are complex and an underlying genetic cause for approximately 1,400 rare diseases is still unknown.

In addition, new genetic mutations associated with identified rare diseases are discovered every year, and as a result, rare genetic diseases that can be diagnosed need to be continuously updated with the new information, otherwise the diagnosis provided becomes inaccurate over time. Furthermore, capabilities to deeply characterize patients with rare genetic variants, including RNA (transcriptomic) analysis, peptide and protein (proteomic) analysis, and functional assays and metabolite (metabolomic) analysis help significantly to delineate mechanisms of disease, and thereby characterize molecular markers of disease beyond the "naked" disease-causing variants which are captured through DNA sequencing.

Manifestation and Diagnosis of Rare Diseases

Because of phenotypic heterogeneity, rare disease manifestations vary in onset and severity, and many rare diseases exhibit a number of variations or sub-types. Almost 70% of the rare genetic diseases are pediatric onset, which means symptoms may be observed at birth or in childhood, as is usually the case with spinal muscular atrophy, neurofibromatosis, and chondrodysplasia. The remaining rare genetic diseases manifest symptoms during adulthood. Given the delayed onset and large variance in the symptoms that can manifest, the vast majority of these patients are misdiagnosed.

As rare diseases have a multifaceted genetic and phenotypical nature and often only a small number of patients are affected, diagnosis is complex and requires specialist knowledge – making it difficult for rare disease patients to receive an accurate diagnosis. This delay in diagnosis can be significant for many patients and may lead to irreversible progression of the patient's condition. For example, in the United Kingdom and the United States, the average time to obtain a correct diagnosis for a rare disease is five to seven years, and throughout this period, patients experience two to three misdiagnoses. Pediatric rare disease patients can experience an even more significant delay in diagnosis. Across both pediatric and adult patient populations, approximately 90% of rare disease patients are typically undiagnosed. For example, the National Institutes of Health estimate that there are approximately 50,000 Fabry disease patients in the United States, whereas only 4,000 to 5,000 are currently diagnosed. As a result of incorrect and delayed diagnosis, unnecessary tests and treatments are often carried out, and in some cases, treatment windows are missed entirely.

Overlap Between Rare and Neurodegenerative Diseases

Genetic factors can significantly contribute to neurodegenerative diseases, with considerable heritability estimates. However, there is a large gap in the understanding of how genetics influence the manifestation of neurodegenerative diseases. Due to the hereditary nature of both rare and neurodegenerative diseases, there are clinical and pathological overlaps.

Leveraging the CENTOGENE Biodatabank and unparalleled insights into unique disease-causing variants, we have been able to demonstrate the genetic overlap between rare and neurodegenerative diseases, including more common conditions, such as Parkinson's disease, as well as rare neurodegenerative diseases, including frontotemporal dementia and amyotrophic lateral sclerosis.

Regulatory Environment and Current Market

Orphan drug legislation in the United States has made significant improvements in encouraging the development of new drugs to treat rare diseases. Since the passage of the Orphan Drug Act and subsequent amendments to the orphan drug regulations, the FDA has granted over 6,000 orphan drug designations. Moreover, the FDA's Center for Drug Evaluation and Research ("CDER") approved 55 novel drugs in 2023, among which 28, or 51%, of these were for rare or "orphan" diseases (diseases that affect fewer than 200,000 people in the United States).

In the United States, orphan drug designation allows the drug sponsor to benefit from incentives for the development of these products up to marketing approval. The measures apply to all stages of drug development and include tax credits for qualified clinical trials, waiver of user fees, and potential marketing exclusivity for seven years. In addition, more than US$420 million was provided by the FDA's Orphan Products Clinical Trials Grants Program over the last three decades and led to 70 marketing approvals for the treatment of rare diseases.

In the European Union, financial incentives, including fee reductions or waivers, are available and market exclusivity is granted for up to 10 years. In 2020, the EU Commission launched a consultation process to revise the existing legal framework for orphan drugs with the aim of adopting a new regulation to increase the development of new products for patients with rare diseases, to provide faster access to corresponding medicines and to establish an efficient evaluation and approval process for these medicines. On April 26, 2023, the EU Commission adopted a proposal for a new Directive and a new Regulation, which, if enacted, would revise and replace the existing general pharmaceutical legislation in the EU (Regulation 726/2004 and Directive 2001/83/EC) and the legislation on medicines for children and for rare diseases (Regulation 1901/2006 and Regulation 141/2000/EC, respectively). The draft provides

for significant changes to the existing legal regime. The draft provides, inter alia, for a shortening of the general market exclusivity period for orphan drugs from ten to nine years, but companies can take advantage of additional market exclusivity periods. The Commission proposal is now under review by the EU Parliament and EU Council and may undergo substantial changes during the ongoing legislative procedure (2023/0131/COD).

Due to these legislative initiatives, there has been an increase in investment and activity in the rare disease drug development space. According to a report by Global Genes, a leading rare disease advocacy organization, investment in rare diseases is gaining momentum. In 2021, drug developers invested a total of US$22.9 billion for research on rare disorders, an increase of 28% compared to 2020. It is estimated that Orphan invoice spending has been increasing at a rate of over 14% for the last five years, and faster than other specialty or traditional drugs for the past four years. These investments are expected to lead to the approval of new rare disease drugs, which, according to market research, are expected to grow at a CAGR of 12% from 2021 to 2026 to US$273 billion, capturing approximately 20% of worldwide prescription sales.

Key Challenges in Rare Disease Drug Development

Despite the legislative initiatives to encourage orphan drug development and the consequent increase in investment and activity in the rare disease drug development space, significant unmet needs still exist. Of the 5,600 rare hereditary diseases, very few rare hereditary diseases have an FDA approved treatment. The limited number of treatments available for rare diseases is the greatest challenge for patient care and is based on the lack of research on rare diseases and barriers in developing and commercializing treatments.

We believe the following summarizes the key challenges clinicians and the pharmaceutical industry are facing today:

Lack of high-quality medical data as a result of:

- *Lack of phenotypic understanding.* For many diseases, the symptoms are non-specific and often do not fit the typical picture of the disease. Due to their phenotypic heterogeneity, rare diseases have highly diverse clinical manifestations and unpredictable progression rates. These factors make it difficult for physicians to make an accurate diagnosis and determine an optimal treatment strategy.

- *Lack of patient sample availability.* Patient samples to study the disease are in short supply, making development of drugs difficult. Even more, dedicated pharmacological models are more commonly developed for common diseases. The generation and storage of rare disease samples is therefore a crucial prerequisite for drug development for rare diseases.

- *Lack of comprehensive and curated information.* A full understanding of the causes of a rare disease requires multiomic information, as well as detailed clinical information. Moreover, thorough medical validation processes must be conducted to ensure the quality of this information. While there are a few, limited rare disease databases available to the market, such as parts of ClinVar and HGMD, they are not specifically set up to service the rare disease industry and, due to their nature, lack medical curation. Consequently, this limits the accuracy and utility of that data for clinical diagnoses and decision-making.

- *Lack of ethnically diverse datasets.* The majority of existing rare disease datasets only capture individuals in developed regions of the world, where healthcare expenditure is disproportionately higher. This disparity yields population datasets that are specific to such regions and does not capture the full ethnic and hereditary nature that may be present in various rare diseases. For example, as published in *Nature*, even though unique genetic mutations are present across many different ethnicities, 87% of all genetic datasets are of European descent.

Difficulties in the early identification of patients. Identifying rare disease patients is difficult given the small patient population for each rare disease. In addition, the population for each of the rare diseases is typically also scattered and diverse, which makes it more difficult to gain access to patients and collect sufficient real-world data to perform meaningful analyses to obtain a better understanding of the rare diseases. The lack of sufficient understanding of the clinical manifestations of rare disease makes it even more challenging to derive accurate diagnoses. The ability to access relevant patients with a particular rare disease and to access appropriate expertise, a physician network, and datasets via a repository, improves the accuracy of disease identification and facilitates the development of new treatments and diagnostic procedures.

Lack of biomarkers. The small patient populations, phenotypic heterogeneity, homogenous datasets and lack of curated information for rare diseases all impede biomarker discovery. Without an identified biomarker, the ability to diagnose and ultimately treat a patient in a timely manner is diminished. Delayed diagnoses and limited knowledge of available treatments can lead to incorrect patient management, further disease progression and/or invasive or detrimental treatments. For example, patients suffering from Gaucher disease and cystic fibrosis can have average life expectancies of only eleven years and one year, respectively, if no treatments are available, leaving limited time for effective treatment if not diagnosed early. In addition, the lack of an identified biomarker can create hurdles in obtaining drug approval as biomarkers can be beneficial in clinical development, specifically in monitoring how effectively a patient is treated by a drug. Biomarkers are also used to correlate with genetic changes, in particular if mutations affect the activity of the protein encoded to a different degree.

Difficulties in orphan drug development and commercialization as a result of:

- *Clinical Trial Recruitment.* Relevant patient populations are rare and typically spread across large geographical regions, making adequate patient recruitment for clinical trials particularly difficult, which can delay development.

- *Trial Design and Dose Selection.* Small patient populations do not allow for multiple parallel studies in the same indication. This also applies to dosages, where the number of dose levels studied may be limited by the practical considerations of running a trial. As a result of these limitations, careful thought must be given to study design in order to optimize clinical trial success.

- *Patient Management.* In an orphan drug trial, clinical management of individual patients can be difficult. Understanding the burden of disease and managing the patient and family experience within a study is key. Because of the progressive nature of many rare diseases, it is crucial to enroll patients at a time where treatment has the highest potential to be effective. Furthermore, the nature of diseases can be very severe, as highlighted by the significant number of pediatric rare disease patients – making it an additional challenge to run a clinical trial.

- *Eligibility Criteria.* Eligibility criteria influences the type of patient eligible to participate in a clinical study. Consequently, this dynamic interferes with the establishment of a database that captures clinical efficacy and safety data which can be extrapolated to a larger network of patients with the same disorder.

- *Understanding the End Market.* Obtaining accurate epidemiological data is crucial for pharmaceutical companies to appropriately size the ultimate end market for a given drug in development. Given the small patient populations, it can be a challenge for pharmaceutical companies to recover the costs of rare disease drug development. As a result, this may impede initial investment in rare disease therapies.

- *Sponsored testing for patient finding.* Once a rare disease drug is commercialized, the limited number of identified patients and challenges associated with diagnosis make it difficult for physicians and pharmaceutical companies to find individuals who would benefit from an approved therapy. In order to market a commercial drug more successfully, improved datasets are needed to aid in patient identification.

Our Vision

We have an integrated approach with a detailed, global understanding of the genetic basis and the clinical phenotype of rare hereditary diseases, which we believe will unlock the ability to target rare and neurodegenerative diseases and provide critical knowledge that will guide drug development and monitoring, and ultimately improve health outcomes for patients. We perform analysis on the patients' data that we receive from our Pharmaceutical and Diagnostic segments as well as from our research projects using a multiomic approach, which utilizes phenomic, genomic, transcriptomic, epigenomic, proteomic, and metabolomic data sets. The combination of the varying "omics" provides deep insights in the pathogenesis of rare and neurodegenerative diseases. The value in such a holistic diagnostic process has resulted in a shift from data generation to interpretation-based diagnostics, whereby the development and use of biomarkers and tests is the central element in bringing rationality to treatment decisions for patients. High-quality, standardized clinical information supporting medical interpretation is a crucial element of the diagnostic process and leads to greater knowledge of the causes and symptoms of rare and neurodegenerative diseases. We believe a combination of worldwide data and detailed access to multiomic data will aid in the development of new treatments and reduce the costs associated with drug discovery, development, and commercialization.

The CENTOGENE Biodatabank

Centogene's integrated multiomic data repository provides unique real-world data in rare and neurodegenerative diseases.

The CENTOGENE Biodatabank sits in the middle of all of Centogene's activities. It drives both our diagnostic business as well as our pharmaceutical partnerships. We have captured data from more than 850,000 individuals from all over the world with a huge variety of clinical phenotypes and genetic information and the number of unique variants in the CENTOGENE Biodatabank is over 85 million. This unique data asset, together with its multiomic lab capabilities, helps Centogene to diagnose rare disease patients with a high diagnostic yield. It also supports our pharmaceutical activities ranging from drug and target discovery to clinical development to market access and expansion. All of these activities further fuel the CENTOGENE Biodatabank with multi modal data including multiomic data, clinical information, sociodemographic data and the patient biomaterial. With this, we believe Centogene created a positive feedback loop where diagnostic excellence and pharmaceutical partnerships create additional data which in turn helps patients via improved diagnostics and accelerated discovery, development, and commercialization of treatments in cooperation with our pharmaceutical partners.

The Strengths of the CENTOGENE Biodatabank

Our platform is intended to streamline and accelerate the development of treatments for rare and neurodegenerative diseases, and aids in the understanding of how to identify new rare disease patients and how to recognize and quantify market opportunities in patient populations. We believe we offer the following solutions for the industry:

- **Extensive repository to identify rare and neurodegenerative disease patients:** The CENTOGENE Biodatabank includes genomic and multiomic data that reflects a global population, as well as a biobank of these patients' blood samples. This capability has been facilitated by our development of the CentoCard, a convenient logistical solution. CentoCard is CE-Marked and easily stored, allowing for massive amounts of data aggregation from around the world. Additionally, where we have optional research consent from the patients in the CENTOGENE Biodatabank, we have the ability to retest their biomaterials in our biobank. We are able to provide information about available treatment options to the physicians in our medical reports, therefore adding to the physician's decision-making tools in determining treatment for their patients. We believe this solution reflects the world´s largest real-world integrated multiomic data repository in rare and neurodegenerative diseases, thereby allowing us to assemble a knowledge base from which to derive accurate diagnoses and epidemiological information. We have relationships with a global network of specialists at rare disease "centers of excellence." With these relationships and the logistical advantages of CentoCard, we are able to continuously grow our repository from the collection of new patient samples and related patient data.

- **Ethnically diverse datasets:** The CENTOGENE Biodatabank has the advantage of holding samples from a broad range of ethnicities, with more than 70% being of samples of non-European descent. Our repository covers a substantial majority of ethnicities, as we have performed diagnostic tests for patients in over 120 highly diverse countries. Without the ability to recognize ethnicity-specific patterns, the interpretation of genetic variants in patients is difficult and a patient's physician may fail to find an accurate diagnosis. The mutation frequency distribution within one ethnicity can vary significantly from that of other ethnic groups within the same rare disease population. For example, a mutation in the Caucasian population might have a significant functional impact and cause a disease, but the exact same mutation in the Mongolian population might be without any functional consequence. With access to data from a more diverse patient population, we are able to improve the interpretation of genetic variants, whether benign or causative.

- **Curated information in the CENTOGENE Biodatabank:** We have built a truly differentiated repository of multimodal data, including sociodemographic, clinical and multiomics data as well as biomaterial, covering over 2,500 rare diseases. As of December 31, 2023, the CENTOGENE Biodatabank included more than 850,000 individuals and approximately 550,000 dried blood spots cards stored in our own physical biobank which enables retrospective analysis for research consented samples. Equally notable is our network of approximately 30,000 active physicians with whom we have been in contact in the last five years.

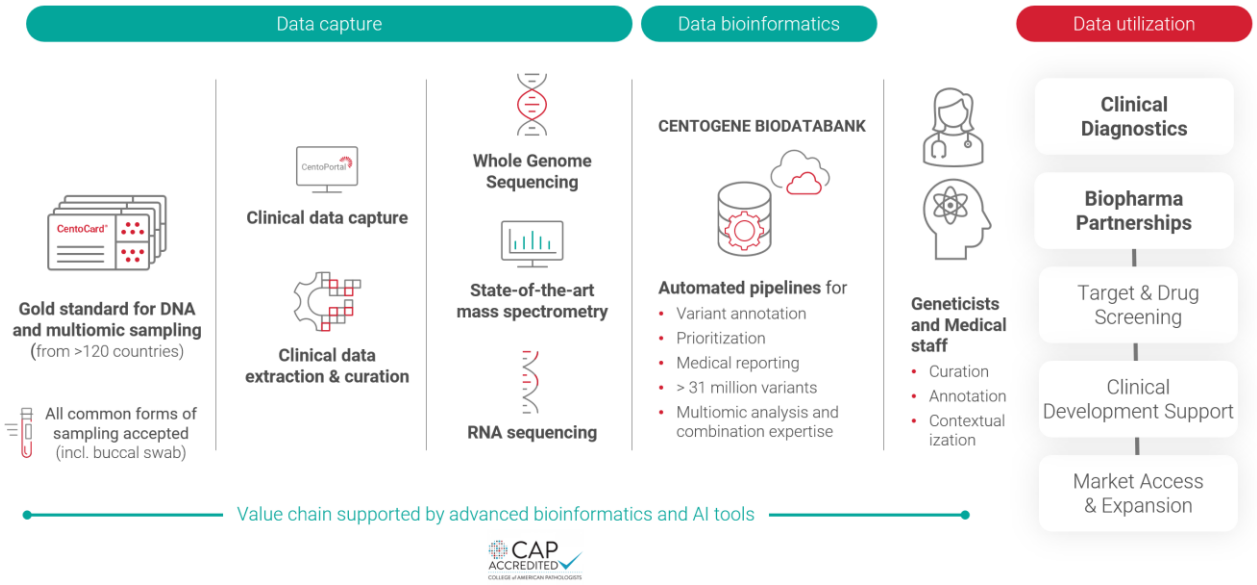
- **Geographic diversity:** The CENTOGENE Biodatabank includes individuals representing over 120 highly diverse countries. It is observed that the largest share of data within our repository relates to Europe followed by the Middle East. In Europe, Germany, Spain and Italy are the top contributors. In the Middle East, Saudi Arabia, the United Arab

Emirates and Iran contribute a large inflow of patients. Many cases of genetic rare diseases are observed in these regions and we have established a strong network of physicians.

- **Data creation**: At the core of our business is the CENTOGENE Biodatabank – allowing us to assemble an extensive knowledge base in rare and neurodegenerative diseases. We collect this detailed level of data in our repository through our easy-to-use CentoCard, which allows us to capture blood samples of potential patients with a low cost of distribution, accompanied by the patients' medical histories and completed consent forms from the physicians. The data is then validated by professionals using a systematic and scientific approach.

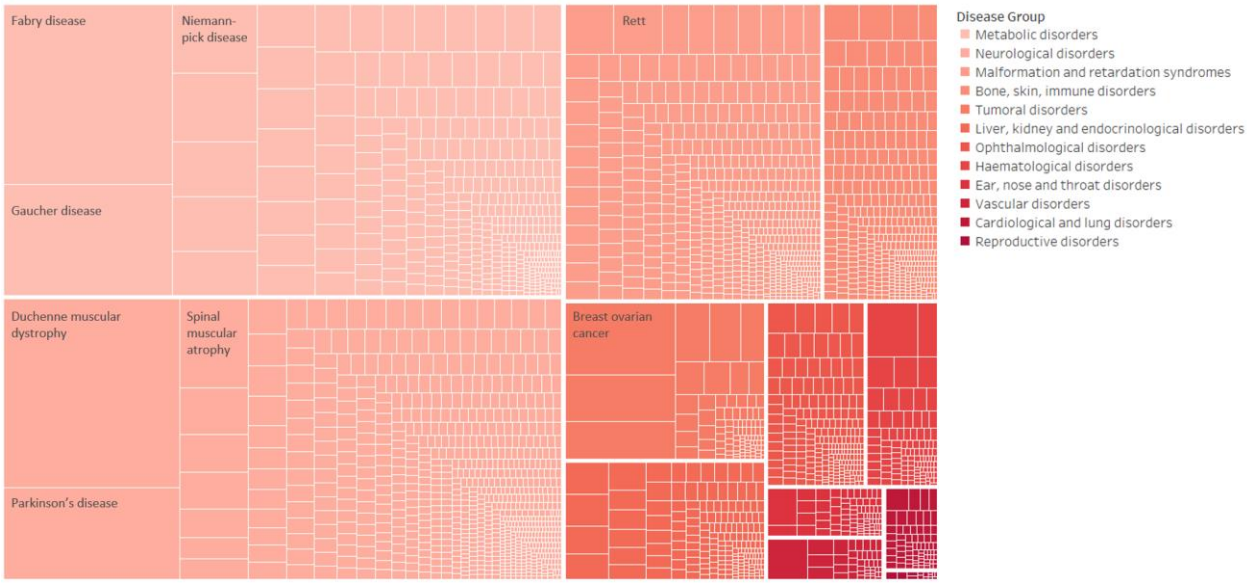
Our team of scientists collects, annotates and reviews the phenotypic, genetic and other clinically relevant data of patient samples to ensure the highest medical validity of each sample. We also employ Human Phenotype Ontology ("HPO") coding to accurately track and standardize sample phenotype and genotype data. The data curation is performed by our professional scientists with strong backgrounds in human genetics. Our methodological approach to information curation

ensures we provide accurate data relevant to clinical diagnoses and decision-making. In this way, we believe that the CENTOGENE Biodatabank brings rationality to the interpretation of global multiomic data.



Therapeutic Areas and Disease Focus

We believe that our broad expertise in rare diseases is reflected in the CENTOGENE Biodatabank, with more than 850,000 patients and over 2,500 rare diseases represented. The CENTOGENE Biodatabank contains comprehensive clinical, multiomic, and sociodemographic data for these cohorts. We have seen in multiple cases that these cohorts are the most comprehensive cohorts accessible.



In addition to powering our diagnostic capabilities, the CENTOGENE Biodatabank's depth and richness of information has allowed us to uncover and describe new gene-disease associations. This repository also powers our R&D efforts to explore and validate candidate biomarkers and potential new therapies for some of the diseases on which we are experts.

Generally, multimodal data sets of cohorts of rare disease patients enable a rapid R&D cycle by generating data-driven insights and developing a better understanding of disease biology. They aid in solving unmet medical needs for the patients and their families, allowing better diagnostics, uncovering the biological factors that determine diverse disease outcomes (disease modifiers), discovering/validating useful disease biomarkers, and mining candidate drug targets.

Data Partnerships

Based on conversations with academic and commercial partners, we believe that the multimodal data in the CENTOGENE Biodatabank is very valuable. We have different data partnership models available under the umbrella term "the CENTOGENE Biodata Network".

Both with *Insight Reports* as well as with *Biodata Licenses*, we can enable knowledge partners to tap into the richness of the CENTOGENE Biodatabank to improve diagnostics, accelerate target discovery and validation, and find and validate new biomarkers and novel gene-disease relationships. Further, the data helps to accelerate and de-risk clinical and observational studies and supports the commercialization with information for market access and expansion. The Biodata Network allows us to offer the right partnership model depending on our partners' needs so that the data of research consented patients can be used to advance discovery and support patients and their families all over the world.

Our Core Business Commercialization Strategy

We are committed to improving health outcomes by accelerating the diagnosis and access to available treatment options for rare and neurodegenerative patients.

Our solutions from our core businesses are offered to our clients via two channels:

- **Pharmaceutical:** Solutions from the core businesses are primarily acquired by pharmaceutical partners, whereas interest from other types of strategic partners, such as CROs, is increasing.
    - Target and Drug Screening: The heart of this product offering is the development of patient-derived cell-models and multiomics as well as biomarker/assay identification and validation;
    - Clinical Development: This product offering includes epidemiology and patient finding as well as genetic biomarker profiling for observational studies, patient multiomic profiling, stratification, modelling, and efficacy markers for POC/PhII/III as well as patient identification and diagnostics for POC/PhII/III;
    - Market Access and Expansion: The core of this offering is three-fold:
        - Real-world registry and early access programs
        - Patient stratification, genetic and biomarker profiling, and modelling; and
        - Patient identification and diagnostics.
    - The CENTOGENE Biodata Network: In addition to the above-mentioned offerings, Centogene differentiates itself from the market through the CENTOGENE Biodatabank and the capabilities to deliver tailored *Insight reports* and *Biodata Licenses*.

  Revenues from our Pharmaceutical segment are generated primarily from partnership agreements with our pharmaceutical partners, which can be structured on a fee per analysis basis, milestone basis, fixed fee basis, royalty basis or a combination of these. For the year ending December 31, 2023, EUR 14.8 million, or 30.5%, of our total revenues were derived from our pharmaceutical segment. For the year ended December 31, 2022, EUR 16.1 million, or 33.9% of our total revenues were derived from our Pharmaceutical segment.

- **Diagnostics:** Our Diagnostics segment provides genetic sequencing and diagnostics interpretation and medical reporting services to patients through our distribution partners or prescribers, in laboratories and institutions, who are typically physicians and geneticist. We offer a broad diagnostic testing portfolio for rare and neurodegenerative diseases, covering over 19,000 genes. Our key products are our WGS and WES, as well as our multiomic testing solution. Together, these

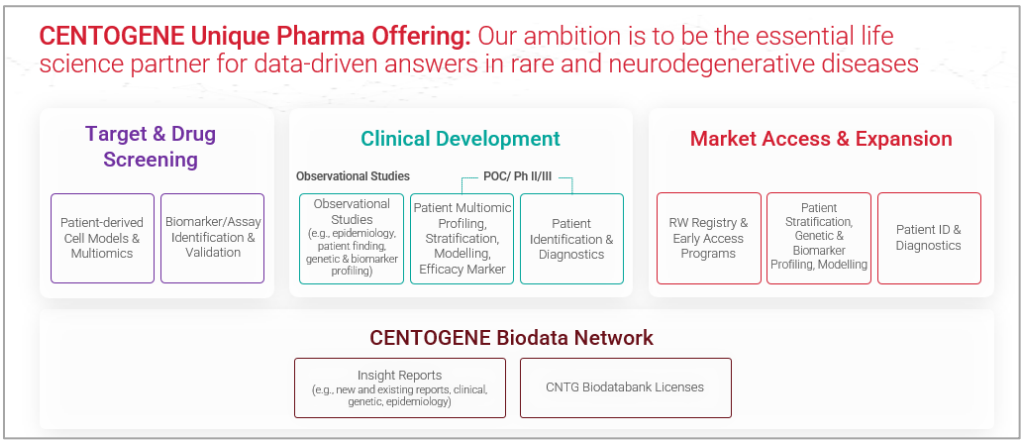
products represent the most comprehensive approach to identifying disease-causing variants. Revenues from our Diagnostics segment are typically generated by set fees per diagnostic test or per bundle of diagnostic tests, under contracts or per price/discount agreements with our clients. In turn, the biomaterial, clinical information and data collected from our diagnostics services allow us to continue to grow the CENTOGENE Biodatabank. For the year ended December 31, 2023, EUR 33.7 million, or 69.5%, of our total revenues were derived from our Diagnostics segment. For the year ended December 31, 2022, EUR 31.4 million, or 66.1%, of our total revenues were derived from our Diagnostics segment.

Pharmaceutical Partnerships

Comprehensive partnerships with biopharmaceutical/pharmaceutical companies support de-risked processes and improved outcome from early drug discovery through clinical development to commercialization.

The offerings to pharmaceutical companies consist of the following key categories: (i) Target and Drug Screening; (ii) Clinical Development; (iii) Market Access and Expansion; and (iv) the CENTOGENE Biodata Network. We currently have partners in each of these categories. While Target and Drug Screening as well as the CENTOGENE Biodata Network are still in the early stages, we expect that Clinical Development as well as Market Access and Expansion will be the key growth drivers for 2024.

The below chart demonstrates the unique pharmaceutical product offering per category.



Strategic Partnerships: Large CROs manage a volume of well over 100 proposals for clinical trials in rare diseases per year. Each individual offer involves a large amount of work because it also involves extensive research into the potential distribution of study sites. We believe that with Centogene, selected CROs can now not only shorten this process, but also substantially improve the quality. The robustness of the CENTOGENE Biodatabank enables us to offer a unique competitive advantage, which makes us an ideal partner for CROs. Not only can the ramp up of the study be faster due to the potential use of patients already known to Centogene; it is also supported with prospective patient identification by Centogene, which can be initiated immediately after the project has been awarded. Strategic partners such as CROs see the advantage of working with Centogene to implement more efficient and faster study projects.

Centogene had 48 ongoing collaborations with 34 different pharmaceutical partners during 2023, and the projects covered all phases of from target and drug screening through clinical development to market access and expansion.

In Vitro Molecular Screening

A full understanding of a given rare and neurodegenerative disease and the ability to identify and target the right molecules is essential for drug development. With access to Centogene's biological samples, *in vitro* molecular screening efforts can aid to accelerate drug discovery efforts. Combined with access to our biobank and data repository, the pharmaceutical partners are able to gain novel insights into the natural history of diseases, the broad spectrum of the different clinical symptoms as well as the genotype-phenotype correlation. Moreover, in situations where several genes can cause the same clinical symptoms, and therefore potentially cloud an accurate diagnosis, Centogene is able to identify additional genes that aid in the accurate diagnosis with the knowledge gathered in in the CENTOGENE Biodatabank.

Epidemiological Studies

The ability of pharmaceutical companies to identify patients early and to optimize their clinical trials is key to the development of treatments for rare and neurodegenerative diseases. Centogene offers epidemiological studies that will provide partners with important input on design and site feasibility data as well as identify the right patients for future clinical studies. Epidemiological studies can target a specific country or region of interest, and thereby enable a better understanding of market potential.

By collaborating with Centogene, pharmaceutical partners are able to specify the rare or neurodegenerative disease of interest as focus for an interventional clinical trial. Available epidemiological data is identified and enhanced with genetic and phenotypic information from the CENTOGENE Biodatabank. From there, the pharmaceutical partners are able to better understand and define specific conditions or eligibility criteria that patients must meet for a clinical study.

Hereafter, a patient selection and identification program is defined. We start by identifying existing patients in the CENTOGENE Biodatabank who fit the defined criteria. If the needed cohort of patients exceeds the number of patients available in our data repository, Centogene's global network of key opinion leaders, clinical labs and specialist physicians can be leveraged. As a result, we are able to help our pharmaceutical partners optimize their clinical trials by more effectively selecting relevant patient groups and by leveraging our detailed understanding of the epidemiological data of the specific disease.

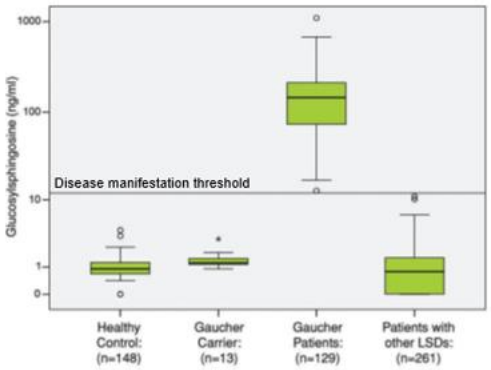
Biomarker Development

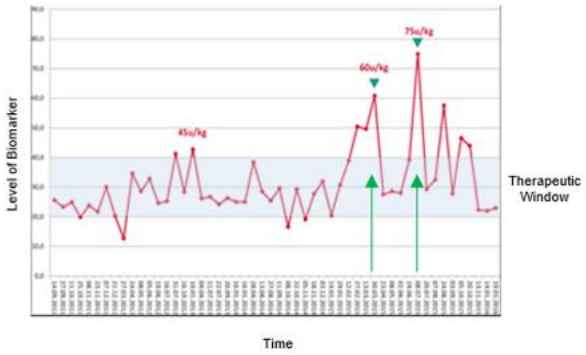
Biomarkers are key tools employed across the continuum of rare disease drug development. Namely, they are utilized to support diagnosis, classify genetic variants of uncertain significance, serve as a companion diagnostic, demonstrate treatment efficacy, as well as monitor disease progression. Furthermore, biomarkers enable more efficient and economical patient diagnosis than genetic testing and allow mass screening programs for large patient cohorts. Biomarkers can also be relevant for precision medicine.

In the development of a high-quality biomarker for a given rare disease, both heterogenous and homogeneous cohorts of patients with known phenotypic and genotypic aspects are needed to identify/validate the sensitivity and specificity of a biomarker for a given disease. We believe the CENTOGENE Biodatabank is the world´s largest real-world integrated multiomic data repository in rare and neurodegenerative diseases, and additionally contains a vast source of healthy control individuals against whom we are able to identify the characteristics of unique biomarkers. Therefore, Centogene is ideally positioned to lead the market in rare disease biomarker development.

As of December 31, 2023, Centogene has developed and capitalized eight biomarkers covering five diseases, including aromatic L-amino acid decarboxylase (AADC) deficiency, Gaucher disease, transthyretin amyloidosis, Farber disease and Hereditary angioedema. In addition, Centogene has commercialized and used additional biomarkers as laboratory developed tests.

With proprietary biomarkers, Centogene can also qualitatively measure a patient's response to approved drugs and to drugs in clinical trials, and using this data helps to determine the optimum treatment dosage for each patient. This not only helps to accelerate the development of drugs by demonstrating the efficacy of the drugs in clinical trials, but also allows patients, physicians and reimbursement agencies to better understand the impact of the drugs. The below graphs demonstrate how Lyso-Gb1, Centogene's first commercialized biomarker, can be used for patient screening and monitoring in the context of Gaucher disease:





* Based on a combination of our biomarker and a genetic confirmatory test

(Rolfs et. al., 2013.)

The left graph demonstrates the sensitivity and specificity of the Lyso-Gb1 (Glucosylsphingosine) biomarker for Gaucher disease. According to a 2017 study, patients who are not suffering from Gaucher disease show a Lyso-Gb1 level of less than 12 nanograms per mL blood, whereas patients with Gaucher disease display elevated levels of Lyso-Gb1. Based on the definition of the cut-off of 12ng/ml Lyso-Gb1, we can demonstrate a 100% sensitivity and close to 100% specificity, which means the Lyso-Gb1 biomarker, when combined with a confirmatory genetic test, can provide 100% accuracy in identifying patients suffering from Gaucher disease, and also those who are not suffering from the disease.

The right graph demonstrates how Lyso-Gb1 biomarker can also be used to titrate the proper enzyme replacement therapy dosage in each individual patient. An increase of the Lyso-Gb1 level indicates that the dosage of the enzyme replacement therapy needs to be adjusted. After adjustment, Lyso-Gb1 levels decreased to an almost normal level. This is valuable for demonstrating drug efficacy to relevant authorities for approval, and also for demonstrating to reimbursement agencies that individualized treatment and dosage may be required for the patient.

Genetic Screening of High-Risk Populations

Once a treatment is available for a rare or neurodegenerative disease, early identification of patients is critical so that patients can be treated before they have reached the stage of irreversible progression. Centogene is able to support pharmaceutical partners in market access and label expansion through patient identification efforts by leveraging our knowledge and performing genetic and biochemical screening on large groups of patients with the risk profile of a given disease. This can be done by using our biomarkers or a tailored genetic test. If a positive diagnosis is concluded, we provide physicians with a medical report, which helps physicians make clinically relevant decisions for the treatment of their patients. For negative diagnoses, further testing options may be available.

Research and Development Validation

Based on our extensive expertise in rare diseases and our access to detailed genetic data, our pharmaceutical partners can approach us for guidance during their drug development endeavors. More specifically, pharmaceutical partners can ask Centogene to engage in their clinical trial design and potentially complement it with multiomics capabilities. All of these services are aimed at optimizing clinical development efforts.

Key Partnerships

Shire/Takeda

In January 2015, we entered into an agreement with Shire, now a subsidiary of Takeda Pharmaceutical Company Limited, to provide certain diagnostic testing capabilities to Shire and its affiliates in order to enhance early diagnosis of patients suffering from lysosomal storage and other rare diseases, including Fabry disease, Gaucher disease and Hunter syndrome. Our unique expertise and repository of data contributes to Takeda's mission to shorten the time it takes for rare disease patients to get diagnosed. In connection with this agreement, we receive a fixed annual fee plus additional service-based payments related to regulatory and diagnostic sequencing activities.

In addition, in 2018, we entered into a new research agreement with Shire relating to their ongoing drug development efforts in HAE. As part of this agreement, we are conducting an extensive epidemiological study leveraging our data repository and network of physicians at centers of excellence to gain unique insights into HAE and to support Takeda's ongoing clinical development efforts. This study was finalized in April 2022.

In December 2021, we extended our Global Master Service Agreement with Takeda to March 2023 and did so again in February 2024 – extending the Global Master Service Agreement to March 2026. This continuous partnership allows us to continue diagnosing and connecting rare disease patients globally.

Evotec International GmbH ("Evotec")

In July 2018, we entered into an agreement with Evotec to support and jointly expedite their identification of new small molecule treatments in the field of glucocerebrosidase deficiency ("Gaucher disease"). Evotec identifies active pharmaceutical ingredients based on the induced pluripotent stem cells ("iPSC") that are generated from fibroblasts we obtain from skin biopsies of patients. We believe our collaboration will aid in the acceleration of drug development through the adoption and application of more accurate cellular models of the target disease and specific biomarkers to monitor such diseases. Our collaboration combines Evotec's cellular compound screening platform and drug discovery capabilities with our medical and genetic insights to develop a high throughput platform to test innovative small molecules in Gaucher disease. In connection with this agreement, we received an initial payment in 2018 and milestone payments as well as further royalty fees on net sales of products developed from this collaboration in 2018 and 2019. In July 2020, we expanded our agreement with Evotec into an extensive collaboration for the discovery of both targets and therapies for Gaucher Disease ("GD"). The use of patient-derived, tissue-specific disease models, which have been created using our iPSC platform, allows for proof-of-concept evaluations in GD. The collaboration combines Evotec's expertise in high throughput screening and compound generation along with our genomic and metabolomic platforms to discover novel therapies for the treatment of GD patients. This collaboration has been extended in December 2022 until March 2023.

On April 29, 2024, the Company and Evotec SE entered into a second amendment to the collaboration agreement, whereby the Company granted Evotec a non-exclusive license to use Program IP until March 31, 2025, in which Centogene will receive an up-front fee. The Company also granted Evotec an option right until March 31, 2025, to enter into a license agreement acquiring Centogene's share of the IP generated throughout the collaboration. Should Evotec execute on a global license, Centogene receives an up-front fee, and would receive milestone payments, as well as additional royalties.

Denali Therapeutics ("Denali")

In September 2018, Centogene entered into a strategic collaboration with Denali Therapeutics for the targeted global identification of Parkinson's patients with genetic variations in the LRRK2 gene. The LRRK2 gene is one of the most common mutated genes in familial PD.

In January 2023, Centogene announced that it had extended the Rostock International Parkinson's Disease (ROPAD) Study to recruit and genetically test additional patients over the next few years. Based on initial findings of the more than 12,500 patients already recruited and genetically tested, the study will now focus its efforts on select sites and geographic areas. The ROPAD Study, which is conducted alongside Denali Therapeutics, is the world's largest observational study on Parkinson's disease genetics with now over 15,000 enrolled patients to date. Throughout this study, up to 25,000 Parkinson's patients from around the world will be tested. Patients enrolled in ROPAD and identified with genetic variations may be eligible for participation in ongoing interventional clinical studies.

Our Diagnostic Solutions

Overview and Product Offering

Our diagnostic solutions segment provides diagnostic testing services to patients exclusively through our network of distribution partners and our diagnostics clients, who are typically physicians, laboratories, universities, or hospital facilities. Our Diagnostic segment serves over 100 countries due in part to our CentoCard solution enabling an efficient and simple transfer of the sample from the point of care to the lab. Additionally, our online platform, CentoPortal, allows our clients to quickly and easily place orders and obtain information related to their patients' test results, as well as benefit from advancements in rare and neurodegenerative disease research, which we update on a regular basis. We provide a high-quality, end-to-end clinical diagnostics solution, which includes pretest clinical counseling performed by our medical experts whenever necessary, sample preparation, sequencing using NGS and other technology, clinical interpretation using our manual and automated bioinformatics pipelines, and medical reporting by our specialists.

Of the more than 5,600 identified rare hereditary diseases, in many cases not only is there no treatment available, but even the natural course of the disease and the relevant tests to diagnose the disease are unknown or underdeveloped. In order to further improve the understanding of rare hereditary diseases and to provide a better and earlier diagnosis for rare disease patients, we continuously develop new testing products to provide the most effective diagnosis products to our physician clients, leveraging insights from the CENTOGENE Biodatabank and our deep medical expertise.

In 2022, we launched MOx (multiomics solutions) as an add-on to our standard Exome and Genome single omic testing. Up until 2021, Centogene was mainly perceived as a genetics company but realized it has strong skills in multiple technologies which could be, to be leveraged for multimodal testing to generate superior disease insights. Multimodal testing is gaining more attention as research shows favorable clinical utility or potential in:

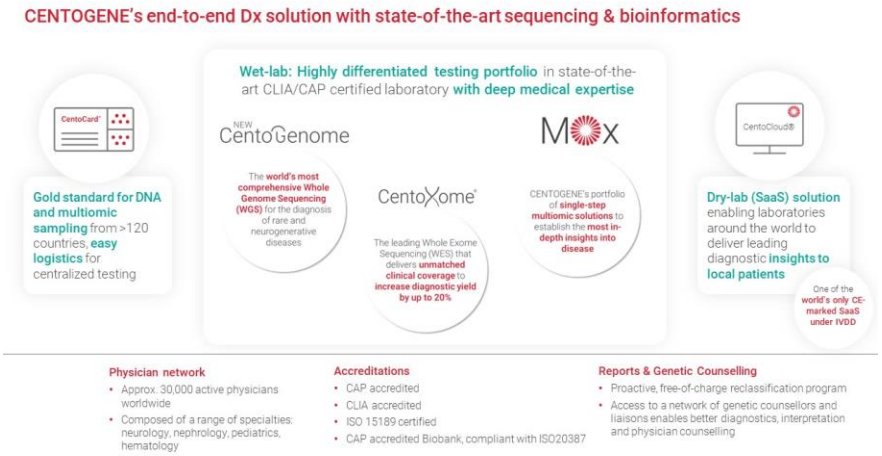
- Increasing diagnostic yield in unresolved patients with challenging phenotypes;
- Stratification of VUS after WES/WGS; and
- Prognostic and predictive testing, monitoring, or subscription sales opportunity.

In October 2023, the company expanded its multiomic portfolio with MOx 2.0 to now include RNA sequencing (transcriptomics). We believe that only a few competitors have begun to establish multiomic testing (e.g., Transcriptomics/RNA after WES/WGS).

As of December 31, 2023, we offered a comprehensive testing portfolio of approximately 5,000 different tests covering over 19,000 genes, from single gene to WGS-based products. We also offered differentiated comprehensive testing solutions including multiomic solutions, CNV analysis, biochemical testing, reproductive health and prenatal testing, among others.

In 2022, we announced the global release of CentoCloud®, a SaaS platform enabling decentralized analysis, interpretation, and reporting of genomic variants linked to rare diseases. The CentoCloud SaaS platform provides rapid and reliable medical reports, which can be challenging for sequencing laboratories due to bioinformatics resource as well as medical expertise limitations. Based on the decentralization of genetic testing and the CENTOGENE Biodatabank, as well as AI-based clinical interpretation, CentoCloud also enables access to high quality medical reporting.

Additionally, labs and research institutions can purchase NGS target enrichment panels in collaboration with Twist Bioscience ("Twist") to help accelerate their research, and also have the option of using CentoCloud for the identification, prioritization, and classification of human genetic variants to expedite diagnostic analysis.

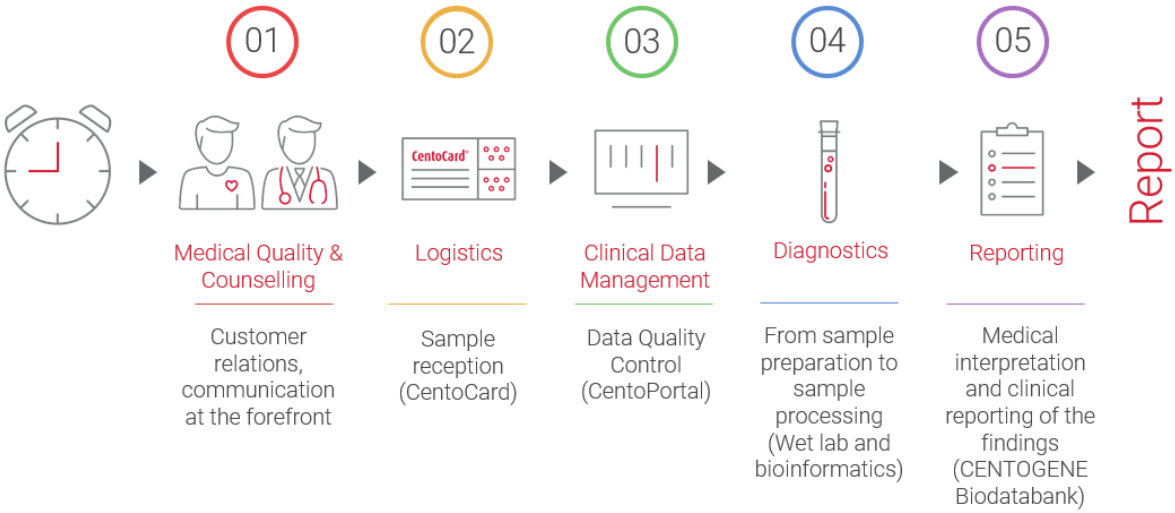


Overview of the Diagnostic Process

Our diagnostics processes are designed with the aim of providing the highest quality diagnosis within the shortest turnaround time. We perform our diagnostic services for our diagnostics and pharmaceutical businesses in our clinical laboratory located in Rostock, Germany, which is certified under CLIA and accredited by the CAP.

We strive to provide the best quality of diagnostics testing, not only by following the strictest quality criteria complying with CAP, and CLIA certifications and adhering to ISO 15189 standards supported by our multidiscipline quality management system ("QMS"), but also by following applicable and market standard Good Laboratory Practice ("GLP") and Good Manufacturing Practice Regulations ("GMP") guidelines. Our processes are highly efficient and have been designed to deliver our medical report back to the physician within 35 days from receipt of the sample, even for our most complex tests.

Our diagnostics process is defined by our five-step process:



- **Medical Quality and Counseling:** Rare disease specialists review the patient's clinical records and confirm that the physician has requested the appropriate genetic test with regard to the patient's individual circumstances and medical history. In all cases, the physician is required to provide us with a completed patient consent form, which our staff review for adequacy prior to the performance of any diagnostic services.

- **Logistics:** We use the CentoCard collection method for obtaining the majority of our samples. This standardized procedure allows us to extract high-quality biological material from DBS on CentoCard, including DNA (for molecular diagnostics), protein (for enzymatic and biomarker assays) and metabolites (for biomarker assays).

- **Clinical Data Management:** Physicians are able to order our diagnostic tests for a particular patient either online through our CentoPortal platform or by email or mail.

- **Diagnostics:** Once a patient sample is received, we prepare the biological material for testing by taking an extract of the DNA from the relevant sample. Depending on the test requested by the physician, we would then proceed to run any number of our diagnostic services listed above.

    - Once produced, the data is entered into a sophisticated series of our proprietary computational algorithms designed to detect and identify known pathogenic variants. The sequenced data is analyzed using our fully validated and automated bioinformatics pipeline and annotated with information from the CENTOGENE Biodatabank. The CENTOGENE Biodatabank is key to the diagnostics process as it is used as the basis of comparison with the patient's sequenced data. This analyzed genetic information, together with the patient's medical history and clinical data, is then interpreted by our medical experts, a team of trained human geneticists and doctors. All identified mutations along with their annotations will undergo a manual validation against the medical history of the patient in order to ensure accuracy.

- Additionally, our bioinformatics pipelines provide a highly automated approach to analysis of variant classification, CNV identification and other genetic data. To augment our bioinformatics pipelines, we have developed a database to store all variant information, which is part of the CENTOGENE Biodatabank, and is the basis for our evaluation and interpretation of genetic data. We have developed an in-house variant prioritization and classification system, named CentoPrio, to enhance our interpretation capabilities. CentoPrio takes advantage of the vast amount of genotypic and phenotypic data stored in our databases. Through the use of proprietary algorithms and machine learning algorithms (AI), we combine this data with current medical knowledge to prioritize particular variants that have been identified in previously closed patient cases.

- **Reporting:** Our test reports deliver clinically relevant information in a manner that seamlessly integrates into physician practices. A standard report contains a summary of the test result and provides our analysis, recommendations and detailed description of the patient's relevant genomic alterations and a full data record for consolidation with the patient's medical records. The report also identifies noteworthy absences of genomic alterations and summaries of, and references to, supporting data from peer-reviewed publications. If requested by the physician, we also provide information on variants in genes not associated with the patient's disease or symptoms but that nonetheless contain medically actionable information (such as incidental or secondary findings).

    - All of our medical reports are written by professional medical experts facilitated by our automated report writing technology and are reviewed and approved by our Chief Medical and Genomic Officer before distribution. Physicians obtain one report per patient diagnosis while our pharmaceutical partners obtain genomic information that has been provided with express patient consent and de-identified in accordance with HIPAA and other relevant health information privacy procedures. All reports are easily accessible through our online platform, CentoPortal.

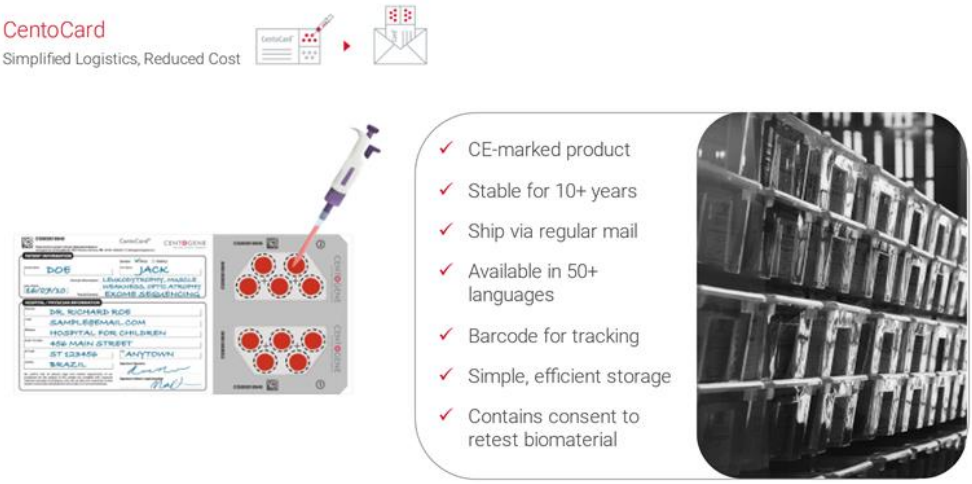
Our Solutions for Providing High-Quality Data

CentoCard

Our sample collection method is a CE-Marked DBS specimen receptacle, CentoCard (as shown below), which is translated into more than 50 languages and has market authorization in more than 35 countries. CentoCard is sent to physicians as part of a five-component kit: (1) the CentoCard, (2) a genetic or other testing informed consent form, (3) an instruction leaflet, (4) a self-addressed return envelope and (5) a plastic sleeve for the used CentoCard to be sealed in once the sample is obtained. In order to obtain the sample, a small amount of blood is drawn from a patient by his or her physician and placed on designated spots on the CentoCard. This sample is then left to dry for approximately two hours, during which time the sample stabilizes. Each CentoCard produced has a unique barcode that allows for the card to be traced at all times. It is delivered to our laboratory in Rostock, Germany, along with a signed consent form, from anywhere in the world via regular post. Samples collected on CentoCard are considered non-biohazardous materials, which allows them to be mailed across many borders without the need for certain customs declarations.

We use the CentoCard collection method to obtain the majority of our samples. This standardized procedure allows us to extract high-quality biological material and perform most of our diagnostic tests from a portion of a single DBS on the CentoCard. Using CentoCard, we are able to provide a solution where necessary molecular and biochemical tests can be run simultaneously using

the same patient sample. Given that the biomaterial stabilizes on CentoCard, we are able to retest the existing patient samples multiple times for more than 10 years from initial sample collection.



CentoPortal

After a physician creates an online account on CentoPortal by following a few easy steps, the physician can order a test product of his or her choosing, provide and sign a patient consent online, provide an overview of the patient's medical history, track the samples and progress of the diagnostic test and download the final medical report once the process is complete. Access to the CentoPortal requires secured authentication. This helps prevent unauthorized access, unauthorized use or loss of patient data.

Biobank

We have established a high-quality biorepository for use in our research and development collaborations with our pharmaceutical partners. Our biobank provides a large diversity of positive test cases in the field of inherited rare diseases and comprises original patient materials characterized through our genetic and/or biochemical diagnostics and with associated clinical information. The biobank operates under robust quality standards and is the first CAP accredited repository outside the United States. It is also compliant with the new ISO20387 standard and comprises materials from patients who have consented to the use of such materials in research. All of our samples have gone through our rigorous process of documentation, analysis and data evaluation by our in-house experts.

Metabolic Biomarker Development Process

So long as an adequate patient cohort exists for any of the 7,000 identified rare diseases, of which approximately 80% have a genetic origin, we believe unique biomarkers can be established. However, the prerequisite is for up- or down-regulated metabolites to be present in the sample medium (e.g. blood) of pathologic or control cases. We may either develop a biomarker on our own, in which case we choose the rare disease to be analyzed using a biomarker, or we may develop a biomarker at the request of a pharmaceutical company, in which case we typically adapt a biomarker for a specific rare disease identified by the pharmaceutical company. In both cases, we own the rights to the biomarker or biomarker test, but in circumstances where a pharmaceutical company is funding the biomarker development process, we may agree to parameters for use of the biomarker going forward.

The first step to the biomarker development process is the identification of patients suffering from a particular disease compared to a respective control group of healthy individuals. To perform this, our repository, which we refer to as the data lake, is browsed for samples to perform patient stratification. Patients with a phenotype and/or genotype known to be an indicator of the particular disease for which we plan to develop the biomarker are compared with a large cohort of healthy control individuals. We can conduct this process with a disease cohort of as few as ten patients in the case of metabolic diseases, although it is our experience that a higher number of patients (i.e., approximately 40) could result in a more specific biomarker target validation. The samples included in the analysis (patients and controls) must be of the same type (e.g., DBS, plasma, tissue) and contain the same anticoagulant. The control samples must be matched to the pathological samples by sample age, patient age, gender, origin, and storage condition.

Information on ongoing treatments is important since it has an effect on the patient's metabolic profile. In addition, our clinical study department is involved with the identification and recruitment of patients when there is a lack of patients identified in our repository.

The extraction of metabolites from a sample is performed in a highly standardized manner as the results of the biomarker discovery depend on the stability of the samples and the uniformity of the extraction process. We then analyze the samples using an untargeted high resolution hybrid mass spectrometer to obtain a full metabolic profile The resulting differences found between the patient cohort profiles and the control cohort profiles are identified using statistical and mathematical algorithms as well as methods based on AI.

Machine learning ("ML") algorithms and statistical methods helps us to identify correlations between different data in an efficient and more accurate manner, and to discover patterns that would not be discovered manually. ML also allows us to perform fully automated pattern recognition on multidimensional data (e.g., retention time, collision cross section, monoisotopic ion mass, fragmentation pattern) obtained from mass spectrometry.

In 2020, we built an integrated biomarker development platform that substantially simplifies and accelerates the search and confirmation of metabolomic biomarkers. The platform allows us to align arbitrary numbers of mass spectrometry measurements. As of December 31, 2023, the metabolic profiles of more than 12,000 individuals are available in one aligned dataset within our CentoMetabolome data base. On this dataset, we can perform virtual experiments qualitatively for biomarker development. Since no further biomaterial is consumed after the one-time initial measurement, an unlimited number of experiments can be performed. The functionality is integrated in a user-friendly platform and therefore accessible to biological experts without knowledge about machine learning. The platform supports the search for biomarker candidates as well as screening of patients.

The mass spectrometry peaks (signals) identified by the platform are then investigated with other mass spectrometric techniques (fragmentation and targeted mass spectrometry) to identify the metabolites underlying the signal (so-called structural elucidation). Subsequently, using estimate on the structural identity of the biomarker candidate, a pure synthesized standard is measured to confirm the structural assignment and inspected to determine if the biomarker candidate is present in the metabolic pathway that is affected by the disease (biological interpretation).

Validation Tests

As more patients are enrolled to the clinical trials, we are also able to perform further validation tests for biomarkers so that it could be used for longitudinal monitoring. Validation is a three-to-six-month process during which the biomarker and its characteristics are assessed, which helps to determine the range of conditions under which the biomarker will give reproducible and accurate data. Approximately 50 to 100 patients in a disease cohort are needed to complete the validation process and approximately 8,000 to 10,000 different measurements are needed to comply with all CAP/CLIA/ISO requirements.

Research and Development

We are dedicated to scientific research and development in order to continuously improve the industry's understanding of epidemiology and its analysis of clinical heterogeneity as an aid to the diagnosis of rare and neurodegenerative diseases and facilitate the discovery and development of new drugs.

We undertake scientific research and clinical studies, both independently and together with our pharmaceutical partners, with the aim of positively contributing to the global understanding of rare and neurodegenerative diseases, as well as to improve the accuracy of diagnosis and to support the development of effective treatments for rare diseases. The CENTOGENE Biodatabank, which represents over 850,000 individuals from over 120 highly diverse countries and contains over 500,000 biosamples, is key to our research and development. Clinical data captured combined with WGS, transcriptomics and metabolomics allows unique insights into disease pathologies. It enables our research in rare disease genomics and biomarker development and serves as a starting point for drug discovery. Cellular disease models serve as a starting point for testing hypotheses of pathological mechanisms. For this, patient derived IPS cells are differentiated towards mature cellular phenotypes. Disease causing mutations in those cells enable the establishment of cellular disease models and when comparing to healthy cells allows target and drug discovery with the aim of reverting a pathological phenotype towards a healthy phenotype.

We published over 30 scientific papers in 2023. The highlights from our publications include a landmark study on the largest and most heterogeneous Niemann-Pick type C1 disease (NPC1) cohort published in the European Journal of Human Genetics, data

confirming the utility of lyso-Gb1 (glucosylsphingosine) as a sensitive biomarker for Gaucher disease (GD) published in Diagnostics, and the discovery of a new form of early-onset dystonia and parkinsonism published in Brain.

In terms of technical innovation, we have worked on the evaluation and development of filtercard-based transcriptomic analysis, since the addition of transcriptomic data in our multiomic product offering ultimately defines a key differentiator in Centogene-unique capabilities. By August 2022, we could conclude on a successful proof-of-concept that clinical-quality RNA-analysis is possible in DBS filtercard samples from routine diagnostics opening up a variety of future products in diagnostics and pharmaceutical research.

Our major on-going clinical studies, other than those related to biomarker development, are as follows as of December 31, 2023.

Peptide-Based Immunization for Colon- and Pancreas-Carcinoma (PICOP-Global)

In June 2019, we announced the initiation of a 24-month global proof of concept study focusing on the identification of tumor specific neoantigens, which we anticipate will be used by our partners as the basis for developing a personalized, immune-based therapy to trigger patients' own immune responses against tumors.

In 2022, we successfully concluded on the PICOP-study protocol with more than 200 cancer patients recruited in Germany and Pakistan. Furthermore, the somatic variant analysis for neoepitope prediction was established and validated within the program and high-quality neoepitopes for anti-tumor vaccination have been defined in the samples. The financial support through the ministry of economics in Mecklenburg–Western Pomerania, Germany was fully claimed and realized.

Induced pluripotent stem cells (iPSC) program

Since early 2019, we have independently conducted an iPSC program (the "iPSC Program") with the aim of supporting orphan drug development in a more cost effective and efficient manner, in particular for the development of orphan drugs related to rare neurodegenerative, metabolic, and cardiovascular diseases. Human iPSCs, first reported in 2007, are reprogrammed from somatic cells and are self-renewal cells that can produce different types of cells. In the drug discovery process for rare diseases, iPSC technology is particularly important in providing information on the clinical spectrum of such diseases by generating disease specific cells which can be used to evaluate novel therapeutics.

As of December 31, 2023, 1,250 individuals from around the world donated skin biopsies. As part of our iPSC Program, we are currently in the process of reprogramming these biopsies into iPSC for a number of metabolic rare diseases and differentiating the cells into a number of disease-relevant cell types (macrophages, microglia and neurons). We currently establish patient-derived macrophage disease models in Gaucher disease and Niemann-Pick disease type C. Once completed, the iPSC Program will further support orthogonal target validation as well as further biomarker discovery that we undertake.

Hereditary Transthyretin-Related Amyloidosis Study (TRAMoniTTR)

Following the success of the TRAM2 study, where approximately 5,000 individuals were screened for TTR mutations resulting in the identification of almost 60 individuals with this rare neurodegenerative disease, a longitudinal study focusing on TTR-positive individuals was designed and initiated with the support of our pharmaceutical partner Alnylam. As of the end of 2022, 2,393 subjects have been screened in 50 German centers. To date, 63 individuals with TTR mutations have been recruited for follow-up visits and the samples are used for comprehensive multiomic characterization to define and validate TTR-specific biomarkers using transcriptomics and metabolomics.

Our major ongoing collaborative drug discovery efforts making use of our unique insight into disease mechanisms are as follows as of December 31, 2023.

Rostock International Parkinson's Disease Study (ROPAD)

The Rostock International Parkinson's Disease (ROPAD) Study aims to characterize the genetics of PD to establish a better understanding of disease progression, diagnosis, and treatment for patients.

By the end of 2020, the ROPAD Study, which was initiated in May 2019 to investigate the genetic factors in Parkinson's disease, achieved its goal of recruiting and genetically characterizing more than 10,000 subjects with Parkinson's Disease (PD). In September 2018, Centogene entered into a strategic collaboration with Denali Therapeutics for the targeted global identification of PD patients with genetic variations in the LRRK2 gene. The LRRK2 gene is one of the most common mutated genes in familial PD.

In 2022, the study reached a significant milestone of testing over 12,500 participants.

In January 2023, Centogene announced that it had extended the Rostock International Parkinson's Disease (ROPAD) Study to recruit and genetically test additional patients over the next few years. Based on initial findings of the more than 12,500 participants already recruited and genetically tested, the study will now focus its efforts on select sites and geographic areas. Throughout this study, up to 25,000 PD participants from around the world will be tested.

Epidemiological Study in Frontotemporal Dementia (EFRONT)

We have been conducting a large observational study to advance the genetic understanding of frontotemporal dementia (FTD) since May 2021. The EFRONT study aims to enroll and complete data-rich genetic testing for over 2,500 FTD diagnosed or suspected patients to learn more about the genetic makeup of the disease. The EFRONT study is being conducted with support from Alector, Inc., a clinical-stage biotechnology company pioneering immuno-neurology.

EFRONT study participants with genetic mutations in the progranulin (GRN) gene will have the option to enroll in Alector's Phase 3 INFRONT-3 clinical trial of latozinemab, an investigational therapeutic candidate designed to increase progranulin levels for the treatment of FTD.

European Alpha-Mannosidosis Patient Epidemiological Program (EUMAP)

EUMAP is an international, multicenter, observational, longitudinal monitoring study to investigate the prevalence of Alpha-Mannosidosis in participants at risk for Alpha-Mannosidosis. Recruitment for EUMAP was sponsored by Chiesi. Although the initial target to recruit 1,000 patients by September 2020 was not met due to the delays caused by the COVID-19 pandemic, we added nearly 250 patients in 2021. The total number of recruited patients at the end of 2021 was 677. The EUMAP study was mutually terminated after 767 patients were recruited. A final report was shared with Chiesi in September 2022 as final milestone marking project completion**.**

Drug discovery in Gaucher Disease

In January 2022, we entered the third year of a collaborative effort with Evotec to discover novel small molecule drug candidates to target the unmet medical needs in Gaucher disease. The combination of our unique understanding of genetics, transcriptomics, metabolomics and IPS derived cellular disease models in Gaucher disease, and Evotec's outstanding drug discovery capabilities make uniquely position this collaboration to advance the discovery of drug candidates to glucocerebrosidase (GBA-1), a gene described as causative in Gaucher disease. After finishing high throughput screening, the next phase of drug discovery (a hit to lead chemistry program) was initiated, which resulted in progress towards proof of concept in an animal model of Gaucher disease. iPSC derived disease macrophages were used to show the efficacy of drug candidates using a Centogene proprietary biomarker. A new agreement was signed on April 2024 with Evotec to extend the collaboration.

Our Operations

Sales and Marketing

As of December 31, 2023, we had a sales force of approximately 59 employees and consultants in our Diagnostics segment. Our sales team members are all trained in key account management and/or genetic diagnostics and are able to discuss the different diagnostic and workflow needs of doctors, physicians, and genetic counselors. With our global footprint, we support rare and neurodegenerative disease patients around the world. We have a 5-region structure (North America (NAMER), Latin America (LATAM), Europe, the Middle East & Africa (EMEA), and Asia Pacific (APAC)), and each of the geographical regions is led by a Regional General Manager supervising a team of sales and clinical liaisons.

In 2023, we continued to expand our direct footprint and our distribution network in our Diagnostics Segment to further increase the sample volumes in targeted geographic areas. We strengthened our Southern European market presence in Italy, Spain,

and Portugal, as well as in Israel by expansion of sales resources. As part of our North America strategy, we also decided to invest in establishing a local presence in Canada with dedicated sales resources in East and West Canada. In Latin America, we decided to change our go-to-market strategy by establishing a local sales team in Colombia, taking over from distribution partners.

In 2023, we also significantly built up the team within our Pharmaceutical segment – underlining our strategic focus to better serve our existing partners, to increase collaborations with new partners, and to expand our collaboration model. As of December 31, 2023, we had a team of approximately 47 employees and consultants in our Pharmaceutical segment. Our Pharma team brings a significant amount of experience within the life science industry, which we expect to transfer to increased activities within this segment.

Information Technology Platforms

Our IT infrastructure platform is based on state-of-the-art standardized components. We run our systems according to the following hybrid production model in an effort to optimize cost and service levels:

- Systems that require a short distance-to-lab infrastructure are run in-house in separate, protected server rooms;
- Tailored systems with special requirements and heightened security use outsourced infrastructure as a service provided by Datagroup AG, which is GDPR-compliant. These services are provided by two datacenters in Frankfurt and our lab in Rostock, which are connected by two independent and encrypted 10GB landlines; and
- Highly standardized, high-volume requirements use cloud services provided by Amazon Web Services ("AWS") and Microsoft.

All services are based on virtualized server systems with central storage components accompanied by backup and restore services, centrally managed network services, firewall systems, internet, databases and workplace services. System monitoring and events are implemented for all relevant systems with a central monitoring solution and central network scanner controls. Centrally managed user accounts are handled in the directory system.

Information security is highly valued and the principles of confidentiality, integrity and availability of information are a part of our core values. Information is protected by a variety of controls and procedures, including firewalls, password protections, data encryption (in storage and in transit) and malware protection tools. All internet-facing applications are regularly security tested. All personal data processing services are evaluated by our data protection officer and information security officer and documented in accordance with GDPR. Additionally, our data services are certified across a variety of industry security standards, including ISO 9001 (which aims to ensure we consistently provide services and products that meet customer and regulatory security expectations) and ISO 27001 (which standards ensure the data in our database are secured).

Our workflows and processes are supported by various specialized applications. For example, via our user-friendly online portal "CentoPortal," analyses ranging from individual diagnostic requests to requests for pharmaceutical projects with high throughput testing can be ordered. Physicians can view the status of the samples they submitted and download a complete medical report. Upon receiving samples, we digitize all information to support a fully digital internal workflow. This starts with a web application for sample entries, where information is transferred automatically by interfaces to our laboratory information system. This information forms the basis of our medical reports, which are made available to doctors for download. Data is shared between CentoPortal and our laboratory information systems through a fully automated interface.

Artificial Intelligence

Since 2018, we have been using AI to further automate our processes, obtain new insights about rare diseases from mass data sets and generate new knowledge-driven business models. For example, we use AI to enhance our biomarker discovery process. This allows us to shorten data analysis time from weeks to minutes and to identify multiple biomarkers or additional biomarker patterns in our multiomic datasets. We also use AI to automate our curation process and the identification of genetic and/or metabolic modifiers.

We believe that the CENTOGENE Biodatabank provides us with a competitive advantage for driving the development of new and effective AI tools, as the foundation of any successful AI program is high-quality data in a volume that can effectively generate results. The higher quality the data and the more data that are available, the better chance we have of building machine learning models with high predictive power and accuracy.

We employ AI methods in the following domains:

Intelligent Character Recognition

Intelligent character recognition ("ICR") at the sample entry stage enables us to fully digitize all information contained in sample order paperwork. Even on handwritten texts, our ICR technology achieves significant performance. This allows us to obtain accurate patient information at the initial stage of the diagnostics process and reduces the likelihood of human error.

Clinical Information Extraction

We extract clinical information from diagnostic reports, using natural language processing methods. Text recognition analyses PDF medical reports and detects clinical status, family history, HPO terms, age, and other data. The data is subsequently applied to enrich cases in our CENTOGENE Biodatabank.

Anomaly Detection in NGS data

We implemented an AI function that identifies lab contaminations at the sample or library preparation stages. This provides corrective measures and counter measures for future applications. The algorithm is programmed to recognize "normal" data and alerts its users when an anomaly is detected. Information regarding the anomaly is provided by the algorithm detailing its top-k indicators and comparisons are made to similar anomalies detected in the past along with the respective reported results and subsequent actions taken. This solution is fully developed but not yet deployed.

Variant Prioritization

We have deployed a new variant prioritization tool based on our in-house AI capability. This tool identifies the most likely disease-causing genes based on the CENTOGENE Biodatabank, in order to further accelerate our and our partners' diagnostics processes and is in particular aimed to enhance the diagnostics process for WES and Clinical Exome Sequencings ("CES").

With our clinical exome panel, which covers over 19,000 genes with known associated clinical phenotypes, the result of the sequencing process usually discovers between 70,000 and 150,000 variants per individual. However, the majority of these variants are benign or unrelated to the observed disease phenotype of the patient. With our huge data repository built up from the last 15+ years, and a curated database with standardized HPO terms, our tool is able to rank the variants from most to least relevant. Based on such "ranked" variants, we can then compare the HPO terms of a new patient with the results of prior, anonymized patients included in our repository with variants in the same gene. This allows us to provide a diagnosis in a more rapid, comprehensive and accurate manner, especially for patients with very rare or as yet undescribed diseases.

Variant Classification

In 2015, the American College of Medical Genetics and Genomics (ACMG) and the Association for Molecular Pathology (AMP) published a joint consensus recommendation for interpretation of genetic variants. ACMG's recommended standards classify genetic variants, based on 28 criteria, into five categories: pathogenic, likely pathogenic, variant of uncertain significance (VUS), likely benign and benign. We have implemented a semi-automated variant classification tool that classifies variants detected in a sample based on ACMG's recommended standards. Our tool will significantly reduce the time taken to interpret the clinical significance of genetic variants and increase the quality such interpretation.

AI-Based Artifact Detection Tool

Artifact discovery via current diagnostic workflows such as visual infection and sanger sequencing for WGS cases requires a lot of manual work. This method of discovery is inefficient, error prone and risks important variants being missed in the discovery process. By applying our artifact prediction model, we can improve the reliability of the data by distinguishing true variant calls from sequencing errors in WGS samples, and prioritize true variants in the evaluation processes which results in a reduction of analysis effort and increases the diagnostic efficiency. Subsequently, a report is provided to our medical experts for the interpretation of variant sequencing quality which categorizes the results into one of three classes: "likely artifact", "likely true", and "unknown".

Artifact detection is a tool used for the classification of small sequence variants (SNPs, InDels) into likely artifacts, unknown, or likely variant. It enables the automated detection of artifacts in VCF-files using machine learning algorithms. The model is based on

gradient boosting classification, which uses an ensemble of so-called weak learners to create a strong learner, yielding reliable classification results.

Automated Curation Report

Our curators are responsible for the collection, association, update and review of genetic and phenotypic data of cases analyzed at Centogene to assure the highest level of data quality. The automated curation process supports our curation process with a set of rules encoding the expert knowledge and classifying newly incoming cases as well as reclassifying the old ones if new genomic insights result from research.

Biomarker Discovery & Support of Metabolomic Processes

We built a proprietary, AI-powered biomarker platform called CentoMetabolome. This internally developed platform has the potential to revolutionize the detection of new biomarkers by accelerating components of biomarker development that previously required months to complete to a few weeks. This includes supporting metabolome screening and identifying biomarker candidates. The integration of AI-based methods into a user-friendly platform enables the medical experts to perform high-quality and high-performance biomarker experiments, with integrated quality control checks. In addition, we have been awarded the Health-i Award for the development of this platform, which recognizes companies that are transforming healthcare domestically and internationally. The Health-i Award winners were selected by industry and research experts for initiatives that are aimed at transforming the next era of healthcare through innovation.

Multiomic Analysis

We extended a multiomic platform for genomics and metabolomics integration and visualization, from the focus on Gaucher disease to also include Parkinson's disease. The platform consists of a comprehensive multiomic map of genes, mutations, metabolic reactions, enzymes, and regulatory elements of the focus diseases. The map allows for the overlay of our genomic, metabolomics and, phenomic data, the performance of perturbation experiments of expression parameters for phenotype prediction and the analysis of fold change data. This platform is capable of being extended to transcriptomics and proteomics. It provides a unique, innovative model for understanding system biology and allows for the selection of targets for drug discovery. The extension allows for the investigation of the interplay between Gaucher disease and Parkinson's disease, with associated pathways. Inbuilt applications within the platform also allow correlations between genomic and metabolomic data, and extraction of pathways and differential metabolites to further enable biological understanding of diseases.

Genome-wide association studies (GWAS) pipeline

We have developed a genome-wide association studies (GWAS) pipeline to identify genetic modifiers. This pipeline includes different statistical tests, both at the variant and at the gene level. The implementation allows for variant filtering based on different quality criteria, as well as specific genetic principles. In addition, different gene collapsing models are defined based on variant properties such as minor allele frequency (MAF) and the predicted variant effect.

Big Data (Data Lake)

Many rare diseases share phenotypic and genetic traits which interests biopharma companies involved in drug development and commercialization. Patient, diagnostic, genetic, transcriptomic, proteomic, metabolic and phenotypic information extractable from patient samples are stored in different data formats with different applications and workflows. To optimize the infrastructure for cross-departmental data evaluation, we developed the BigData platform as a way forward to provide a low-cost scale solution for data storage and processing. It enables users to perform analytics and data science through a flexible, scalable and cloud-based platform across patient biomarker and bioinformatics data.

The Big Data solution is an analytical and reporting platform which changes traditional cross-departmental (silos) into a highly scalable, available system for data storage and analytics.

Healthcare Reimbursement

Reimbursement of genetic or other testing differs markedly among countries and evolves rapidly based on advancements in technologies and cost. It is a challenge for insurers or public payers to decide when to reimburse for genetic or other tests that are

offered by healthcare providers. One of the reasons this is difficult is that often there are alternative treatments with differing results, which insurers may not be able to easily evaluate

Depending on the billing arrangement and applicable law, we may be reimbursed for genetic or other testing services by third-party payors that provide coverage to the patient, such as an insurance company or managed care organization, or by physicians or other authorized parties (such as hospitals or independent laboratories) that order our tests or refer tests to us. In the years ended December 31, 2023, and 2022, we derived between 1% and 2% of our total revenue from United States third-party payers that includes managed care organizations and other healthcare providers. In the years ended December 31, 2023, and 2022, we derived less than 1% of our total revenue from EU insurance companies and managed care organizations based in the European Union.

Data Management

Data is the basis for all of our diagnostic and research processes. We are generating approximately up to 25TB of new data in the lab every month. The data is stored in our own infrastructure as well as in a certified third-party data center and with AWS. The software solutions supporting these processes are based on modern database architecture, and all of our critical systems are fully redundant and backed up in real-time to these facilities.

Further, we implement our big data concept based on architecture. Because we store a vast amount of raw data in our repository, we are able to aggregate data to gain new insights. Data gathering and variant curation are procedures developed and implemented in a web-based software (developed and maintained by Centogene N.V.) that is compliant with the HUGO Gene Nomenclature Committee (the "HGNC"), the Human Genome Variant Society (the "HGVS") and HPO nomenclatures. The software integrates in-house sample management systems and analysis platforms with external databases and utilizes a combination of computer-based tools and manual review in order to assure the accuracy, efficiency and quality of curation process.

Quality Management System (QMS)

We document and maintain a QMS that integrates the compliance of our processes with various *in vitro* diagnostic medical device legislations, and laboratory requirements. Our QMS is supported by standard operating procedures, educational and staff training plans, internal and external proficiency and competency programs, internal and external auditing, quality improvement indicators and pre-post analytical quality controls, including equipment maintenance, negative and positive controls, change management, post-market surveillance, employees and customer health and safety, and document control programs. Our QMS processes comply with various regulatory requirements, including:

- **42 CFR §493** *Laboratory Requirements*
- **21 CFR §820** *Quality System Regulation*
- **ISO 15189** *Medical laboratories –Requirements for Quality and Competence*
- **ISO 13485** *Medical Devices – Quality Management Systems – Requirements for Regulatory Purposes*
- **Regulation (EU) 2017/746 (IVDR)** *Regulation (EU) 2017/746 of the European Parliament and of the Council of 5 April 2017 on in vitro diagnostic medical devices*
- **Directive 98/79/EC (IVDD)** *Directive 98/79/EC of the European Parliament and of the Council of 27 October 1998 on in vitro diagnostic medical devices*

We believe our QMS is built to withstand the rigorous review and auditing requirements of global medical device regulations, clinical trial requirements and good clinical laboratory practice requirements to ensure our patients and clients receive the highest quality level of care and service.

Client data protection is of high importance to us, as we provide solutions to our clients in more than 120 different countries with varying requirements. To ensure that that all data is properly handled, our employees and clients are actively educated on our data and consent processes and policies, which are in line with all applicable, country-specific regulations, such as HIPAA and GDPR. We continuously monitor our processes and policies to uphold the highest data standards.

Data Acquisition and Curation

Curation is the process of collection, association, updating and reviewing epidemiologic, phenotypic and genetic data of patients analyzed by us into a structured and standardized format. It uses a combination of computer-based tools and manual review in order to assure the accuracy, efficiency and quality of the curation process.

Data acquisition. Data gathering and variant curation procedures are developed and implemented in a web-based software which is compliant with the HGNC, HGVS and HPO nomenclatures allowing collection of variants detected in nuclear coding, nuclear non-coding and mitochondrial genes. The software integrates in-house sample management systems and analysis platforms with external databases providing the curator with a comprehensive and straightforward overview of the evidence regarding genotype-phenotype correlation available both in-house and external.

The data is gathered by a combination of manual submission and data importation following an individual-oriented model where characteristics belonging to a particular individual (including patient information, clinical data, methodology and detected genetic variants) are stored and associated together.

Our uniform classification of variants is an important step in improving our understanding of disease pathogenicity. There are approximately 3 billion base pairs in an individual genome, which translates to approximately 200 gigabytes of data that can be obtained from a single sequencing process. The classification of variants which we record in the CENTOGENE Biodatabank follows the American College of Medical Genetics and Genomics and Clingen guidelines for variant classification, differentiated into five categories: pathogenic, likely pathogenic, variant of uncertain clinical significance, likely benign or benign. If a diagnostic test is finalized without assigned clinical significance we still include the data under an "unclassified" quality status. This information can then be used as comparative data for future diagnostic tests. This systematic classification of variants is based on a highly qualified and standardized curation process, which allows us to provide our clients with high-quality clinical interpretations of newly identified variants, and also ensures that changes in variant classification will be communicated and reflected in our clinical interpretations in a timely manner.

As industry knowledge on variant frequencies increases, we reevaluate the variant classifications contained in our database on a regular basis to ensure our system incorporates the most up-to-date information. Additionally, given the number of rare diseases that have yet to be fully diagnosed and the speed of advancements in the rare disease industry, we regularly revisit "uncertain" patient data to reassess prior clinical interpretations against this new industry knowledge.

Database curators. Our curators are scientists with strong backgrounds in human genetics. They continuously undergo extensive training to ensure curation consistency and standardization. They assure that data is properly associated and interpreted and that there are no inconsistencies or discrepancies against detected in-house observations and from external sources. They close the curation process by manual approval that reviewed and curated data comply with standard in-house procedures.

Curation workflow. To provide high-quality data, our curation process is divided in three phases: variant-wise, individual-wise and error-wise procedures.

- *Curation by variant.* To begin the curation process, the variant-linked information is reviewed. This includes approval of variant nomenclature, terminology, accuracy, consistency, and record completeness.

- *Curation by individual.* To start curation on a patient-by-patient basis, all variants detected in an individual must be approved. This process aims to assure that the data belonging to an individual follows the guidelines for clinical reporting closely and that all associated data agrees with our established guidelines and applicable industry standards. The following factors are considered critical for the clinical statement: variant clinical significance, patient genotype, inheritance pattern of the disorder, the sex of the patient and the phenotypic description, when available.

- *Curation by warning.* To maintain data quality and consistency, regular quality control (QC) checks are performed in curated data. The QC check process consists of checking and correcting variant, individual and other curated data related warnings detected using pre-established scripts.

Intellectual Property

Our success depends in part on our ability to obtain and maintain proprietary protection of the CENTOGENE Biodatabank, proprietary biomarkers, products, solutions and other know-how related to our business, defend and enforce our intellectual property rights, in particular, our patent rights, preserve the confidentiality of our trade secrets, and operate without infringing valid and enforceable intellectual property rights of others. We seek to protect our proprietary position by, among other things, filing EU, U.S. and certain foreign patent applications related to our biomarkers, where patent protection is available. Our policy is to seek patent protection and trademark registration for commercially valuable assets we develop, as appropriate, and maintain as trade secrets other aspects of our genetic rare disease information platform, processes and know-how. We also rely on proprietary technologies, methods and processes, product designs and branding that we have developed.

Notwithstanding these efforts, we cannot be sure that patents will be granted with respect to any patent applications we have filed or may file in the future, and we cannot be sure that any issued patents will not be challenged, invalidated, or circumvented or that such patents will be commercially useful in protecting our technology. Moreover, trade secrets can be difficult to protect. While we have confidence in the measures we take to protect and preserve our trade secrets, such measures can be breached, and we may not have adequate remedies for any such breach. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. For more information regarding the risks related to our intellectual property, please see "2. Risk Factors—Intellectual Property Risks Related to Our Business."

Patents

Each patent family in our patent portfolio typically includes one or more priority-forming patent applications on the basis of which an international patent application (an application filed under the Patent Cooperation Treaty ("PCT")) is filed, after which national and regional patent applications are prosecuted in various jurisdictions. As of December 31, 2023, our patent portfolio was as follows:

- With regard to our biomarker for Gaucher disease, we own two issued U.S. patents, one pending U.S. non-provisional patent application, issued patents in Australia, China, Europe, Israel, Japan and Russia, and pending patent applications in the following foreign jurisdictions: Brazil, Canada, Europe, and Hong Kong. The two issued European patents have been validated in one or more contracting states of the European Patent Convention. These issued patents, and any patents granted from such applications, are expected to expire in 2032, without taking potential patent term extensions or adjustments into account.

- With regard to our biomarker for Niemann-Pick disease, we own three issued U.S. patents, one pending U.S. non-provisional patent application, issued patents in Australia, Brazil, Europe, Israel, Japan and Mexico, and pending patent applications in the following foreign jurisdictions: Australia and Canada. The one issued European patent has been validated in one or more contracting states of the European Patent Convention. These issued patents, and any patents granted from such applications, are expected to expire between 2032 and 2034, without taking potential patent term extensions or adjustments into account.

- With regard to our biomarker for cystic fibrosis, we own one pending U.S. non-provisional patent application, one issued patent in Israel, and pending patent applications in the following foreign jurisdictions: Australia, Brazil, Canada, Europe, Israel, and Hong Kong. Any patents granted from such applications are expected to expire in 2037, without taking potential patent term extensions or adjustments into account.

The term of individual patents depends upon the legal term for patents in the countries in which they are granted. In most countries, including the United States, the patent term is 20 years from the earliest claimed filing date of a non-provisional patent application in the applicable country. In the United States, a patent's term may, in certain cases, be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the USPTO in examining and granting a patent, or may be shortened if a patent is terminally disclaimed over a commonly owned patent or a patent naming a common inventor and having an earlier expiration date.

Trade Secrets and Trademarks

In addition to patent protection, we also rely on trade secrets, know-how, continuing technological innovation, and confidential information to develop and maintain our proprietary position and protect aspects of our business that are not amenable to,

or that we do not consider appropriate for, patent protection, including, the CENTOGENE Biodatabank. We seek to protect our proprietary technology and processes, in part, by entering into confidentiality agreements and invention assignment agreements with our employees, consultants, scientific advisors, contractors and commercial partners. In addition, we take other appropriate precautions, such as physical and technological security measures, to guard against misappropriation of our proprietary technology by third parties.

Our brand is very important to us, as it is a symbol of our reputation and representative of the goodwill we seek to generate with our customers. Consequently, we have invested significant resources in the protection of our trademarks. We seek trademark protection in the United States and in foreign jurisdictions where available and when appropriate. We own registered trademarks for "Centogene" in Europe, the United States and other jurisdictions, including Canada and Japan.

Regulation

Our diagnostics and pharmaceutical businesses are highly regulated due to our operation of clinical laboratories in Rostock, Germany and because of our provision of diagnostic services and our development of proprietary biomarkers. In addition, we are subject to a variety of regulations and industry standards worldwide governing, among other things, data privacy, distribution of our products and patents and trademark licensing.

The key U.S. and European regulations that are applicable to our business are discussed in more detail below. Whether or not we obtain FDA clearance or approval or a CE Mark for a product, we must obtain the requisite approvals from regulatory authorities in foreign countries prior to the use of a diagnostic or other product in those countries. The requirements and processes governing patient consents, product registration and pricing vary from country to country.

United States Regulation

Our business is subject to and impacted by extensive and frequently changing laws and regulations in the United States at both the federal and state levels. These laws and regulations include regulations particular to our business and laws and regulations relating to conducting business generally. Set forth below are highlights of the key United States regulatory schemes applicable to our business.

CLIA and State Regulation

Because we operate clinical laboratories, we are required to hold certain United States federal and state licenses and certifications to conduct our business. We are subject to CLIA regulations in the United States, which establish quality standards for all laboratory testing to ensure the accuracy, reliability and timeliness of patient test results regardless of where the test is performed. Our laboratory in Rostock, Germany is CLIA-certified and accredited by CAP, as well as CAP ISO 15189 accredited. In addition, we are required to meet certain laboratory licensing requirements for states with regulations beyond CLIA. For more information on state licensing requirements, see "—Regulation—United States Regulation—State Laboratory Testing."

Under CLIA, a laboratory is any facility that performs laboratory testing on specimens derived from humans for the purpose of providing information for the diagnosis, prevention or treatment of disease, or the impairment of, or assessment of health. CLIA also requires that we hold a certificate applicable to the type of work we perform and comply with certain standards. CLIA further regulates virtually all clinical laboratories by requiring that they be certified by the federal government and comply with various operational, personnel, facilities administration quality and proficiency requirements intended to ensure that their clinical laboratory testing services are accurate, reliable and timely. Laboratories must register and list their tests with the Centers for Medicare & Medicaid Services, or CMS, the agency that oversees CLIA. CLIA compliance and certification is also a prerequisite to be eligible to bill for services provided to governmental payor program beneficiaries and for many private payors. CLIA is user-fee funded. Therefore, all costs of administering the program must be covered by the regulated facilities, including certification and survey costs.

We are subject to a survey and inspection every two years to assess compliance with program standards and may be subject to additional unannounced inspections. Laboratories performing high-complexity testing are required to meet more stringent requirements than laboratories performing fewer complex tests. In addition, a laboratory like ours that is certified as "high-complexity" under CLIA may develop, manufacture, validate and use proprietary tests referred to as LDTs. While laboratories that offer LDTs are subject to the FDC Act, in addition to CLIA, the FDA has generally exercised enforcement discretion towards these tests. In compliance with CLIA requirements to establish performance specifications, including accuracy, precision, specificity, sensitivity and a reference range for any LDT used in clinical testing, our LDTs have undergone full analytical validation.

In addition to CLIA requirements, we elect to participate in the accreditation program of CAP. CMS has deemed CAP standards to be equally or more stringent than CLIA regulations and has approved CAP as a recognized accrediting organization. Inspection by CAP is performed in lieu of CMS for accredited laboratories. Because we are accredited by the CAP Laboratory Accreditation Program, we are deemed to also comply with CLIA.

FDA

In the United States, medical devices, including software devices, are subject to extensive regulation by the FDA, under the Food, Drug, and Cosmetic Act (FDC Act), and its implementing regulations, and other federal and state statutes and regulations. The laws and regulations govern, among other things, medical device design, development, testing, manufacturing, labeling, storage, premarket clearance or approval, advertising and promotion and product sales and distribution. To be commercially distributed in the United States, medical devices must receive from the FDA prior to marketing, unless subject to an exemption, either approval of a PMA (for Class III devices), clearance of a 510(k) premarket notification (for most Class II devices) or classification pursuant to a De Novo submission. Typically, exemptions are granted for Class I devices. Manufacturers of all classes of devices must comply with FDA's Quality System Regulation (QSR), establishment registration, medical device listing, labeling requirements, and medical device reporting (MDR) regulations, which are collectively referred to as medical device general controls. Class II devices may also be subject to special controls such as performance standards, post-market surveillance, FDA guidelines, or particularized labeling.

IVDs are subject to regulation by the FDA as medical devices to the extent that they are intended for use in the diagnosis or detection of diseases, or conditions, including, without limitation, the presence of certain chemicals, genetic information or other biomarkers. Predictive, prognostic and screening tests, such as carrier screening tests, can also be IVDs. A subset of IVDs is known as analyte specific reagents ("ASRs"). ASRs consist of single reagents and are intended for use in a diagnostic application for the identification and quantification of an individual chemical substance in biological specimens. Many ASRs are exempt from premarket review; however, ASRs may be regulated as Class I, II, or III devices.

Each medical device is classified into one of three categories based on the risks associated with the device and the level of control necessary to provide reasonable assurance of safety and effectiveness. Class I devices are considered low-risk devices and are generally exempt from premarket review requirements. Class II devices are considered moderate risk, and generally require clearance through the premarket notification (or 510(k) clearance), process in order to be commercially distributed. Class III devices are the highest risk devices and are subject to the highest level of regulatory control to provide reasonable assurance of each device's safety and effectiveness. Class III devices must obtain premarket approval (PMA) before they are marketed. Clinical trials demonstrating a device's safety and effectiveness are always required to support a PMA application and are sometimes required for 510(k) clearance or De Novo classification. Devices that are exempt from FDA premarket review requirements must nonetheless comply with general controls as described below, unless the FDA has chosen to exercise enforcement discretion with respect to a certain type of device, meaning that the agency will generally not enforce regulatory requirements that are otherwise applicable to such devices.

510(k) clearance pathway. To obtain 510(k) clearance, a manufacturer must submit a premarket notification demonstrating to the FDA's satisfaction that the proposed device is substantially equivalent to a predicate device. A predicate device is a legally marketed device that is not subject to a PMA, meaning (i) as device that was legally marketed before May 28, 1976 and for which a PMA is not required, (ii) a device that has been reclassified from Class III to Class II or I, or (iii) a device that was found substantially equivalent through the 510(k) process. The FDA's 510(k) clearance pathway usually takes from three to 12 months, but it can take longer, particularly for a novel type of device or if FDA has significant questions or needs more information about the new device or its manufacturing or quality controls.

After a new medical device receives 510(k) clearance from the FDA, any modification that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, requires a new 510(k) clearance or could require the submission of a PMA application. The FDA requires each manufacturer to make the determination of whether a device modification requires a new 510(k) notification or PMA in the first instance, but the FDA may review any such decision. If the FDA disagrees with a manufacturer's decision not to seek a new 510(k) clearance or PMA for a particular change, the FDA may retroactively require the manufacturer to submit a 510(k) premarket notification or a PMA application. The FDA may also require the manufacturer to cease U.S. marketing and/or recall any distributed units of the modified device until 510(k) clearance or a PMA for the modification is obtained.

PMA pathway. The PMA pathway requires proof of the safety and effectiveness of the device to the FDA's satisfaction. The PMA pathway is costly, lengthy and uncertain. A PMA application must provide extensive data from preclinical studies and at least one pivotal clinical trial, as well as information about the device and its components regarding, among other things, device design,

manufacturing and labeling. During the substantive review period, the FDA may request additional information or clarification of information already provided. Also during the review period, an advisory panel of experts from outside the FDA may be convened to review and evaluate the application and provide recommendations to the FDA. As part of its PMA review process, the FDA will typically inspect the manufacturer's facilities for compliance with QSR requirements, which impose elaborate testing, control, documentation and other quality assurance procedures. The PMA review process typically takes one to three years but can take longer.

New PMA applications or PMA supplements may be required for modifications to the manufacturing process, labeling, device specifications, materials or design of a device that is approved through the PMA process. PMA supplements often require submission of the same type of information as an initial PMA application, except that the supplement is limited to information needed to support any changes from the device covered by the approved PMA application and may or may not require as extensive clinical data or the convening of an advisory panel.

De novo pathway. If a previously unclassified new medical device does not qualify for the 510(k) premarket notification process because no predicate device can be identified, the device is automatically classified as Class III, requiring a PMA application. However, if the device is low or moderate risk, it may be eligible for the De Novo classification process. The De Novo classification process allows a device developer to request that the novel medical device be reclassified as either a Class I or Class II device, rather than having it regulated as a high-risk Class III device subject to the PMA requirements. If the manufacturer seeks reclassification into Class II, the classification request must include a draft proposal for special controls that are necessary to provide a reasonable assurance of the safety and effectiveness of the medical device. The De Novo classification route has been used for many IVD products.

As with the 510(k) premarket notification process described above, any modification to a device authorized through the De Novo process that could significantly affect the safety or effectiveness of such device, or that would constitute a major change in its intended use, requires a new 510(k) clearance or could require the submission of a PMA application.

As an alternative to the De Novo classification process, a company could also file a reclassification petition seeking to change the automatic Class III designation of a novel post-amendment device under Section 513(f)(3) of the FDCA. FDA can also initiate reclassification of an existing device type on its own initiative. In December 2018, FDA issued a final rule to clarify the administrative process through which the FDA reclassifies a medical device. To reclassify a device under Section 513(e) of the FDCA, the FDA must first publish a proposed reclassification order that includes a summary of the valid scientific evidence that supports the reclassification; convene a device classification panel meeting; and consider comments to the public docket before it then publishes a final reclassification order in the Federal Register.

Device Clinical Trials. Clinical trials are almost always required to support a PMA application and are sometimes required for a De Novo classification request or 510(k) premarket notification. In order to conduct a clinical investigation involving human subjects for the purpose of demonstrating the safety and effectiveness of a medical device, an investigator acting on behalf of the company must, among other things, apply for and obtain institutional review board (IRB) approval of the proposed investigation. In addition, if the clinical trial involves a "significant risk" (as defined by the FDA) to human health, the company sponsoring the trial (referred to as the "sponsor") must also submit and obtain FDA approval of an investigational device exemption (IDE) application. An IDE application must be supported by appropriate data, such as animal and laboratory testing results, showing that it is safe to test the device in humans and that the testing protocol is scientifically sound. The IDE application must be approved in advance by the FDA for a specified number of trial participants, unless the product is deemed a non-significant risk device and eligible for abbreviated IDE requirements. Generally, clinical trials for a significant risk device may begin once the IDE application is approved by the FDA and the trial protocol and informed consent are approved by a duly-appointed IRB for each site. FDA's IDE regulations govern investigational device labeling, prohibit promotion, and specify an array of good clinical practice ("GCP") requirements, which include, among other things, recordkeeping, reporting and monitoring responsibilities of trial sponsors and study investigators. Clinical trials must further comply with the FDA's regulations for IRB approval and for informed consent and other human subject protections, all of which are considered part of GCP requirements. Required records and reports are subject to inspection by the FDA. The results of clinical testing may be unfavorable or, even if the intended safety and efficacy success criteria are achieved, may not be considered sufficient for the FDA to grant approval or clearance of a product.

Information about certain clinical trials, including details of the protocol and eventually results, also must be submitted within specific timeframes to the National Institutes of Health, or NIH, for public dissemination on the ClinicalTrials.gov data registry. Information related to the product, patient population, phase of investigation, trial sites and investigators and other aspects of the clinical trial is made public as part of the registration process. Sponsors are obligated to disclose the results of their clinical trials after completion. Disclosure of results can be delayed in some cases for up to two years after the date of completion of the trial.

Failure to timely register a covered clinical trial or to submit results as provided for in the law can give rise to civil monetary penalties and also prevent the non-compliant party from receiving future grant funds from the federal government. The NIH Final Rule on ClinicalTrials.gov registration and reporting requirements became effective in 2017, and both NIH and FDA have brought enforcement actions against non-compliant sponsors.

In the Consolidated Appropriations Act for 2023, Congress amended the FDCA to require the sponsor of any clinical trial for a medical device to develop a diversity action plan for such trial, and if submission of an IDE application is required, to submit such diversity action plan to the FDA. The action plan must include the sponsor's diversity goals for enrollment, as well as a rationale for the goals and a description of how the sponsor will meet them. The FDA may grant a waiver for some or all of the requirements for a diversity action plan. It is unknown at this time how the diversity action plan may affect device clinical trial planning and timing or what specific information FDA will expect in such plans, but if FDA objects to a sponsor's diversity action plan and requires the sponsor to amend the plan or take other actions, it may delay trial initiation.

Post market general controls. After a medical device is authorized for marketing and placed in commercial distribution (or, for 510(k)-exempt products, placed into commerce without first obtaining FDA clearance or approval), numerous regulatory requirements apply. These general controls that must be met for all device classes include:

- establishment registration and device listing;
- the QSR, which requires manufacturers, including third-party manufacturers, to follow design, testing, control, storage, supplier/contractor selection, complaint handling, documentation and other quality assurance procedures;
- labeling regulations, which govern the mandatory elements of the device labels and packaging (including Unique Device Identifier markings for certain categories of products);
- FDA's prohibitions against the promotion of products for uncleared, unapproved or "off-label" uses and other requirements related to promotional activities;
- the MDR regulations, which require that manufacturers report to the FDA if a device may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if the malfunction were to recur;
- voluntary and mandatory device recalls to address problems when a device is defective and/or could be a risk to health;
- correction and removal reporting regulations, which require that manufacturers report to the FDA field corrections and product recalls or removals if undertaken to reduce a risk to health posed by the device or to remedy a violation of the FDCA that may present a risk to health; and
- post-market surveillance regulations, which apply to certain Class II or III devices when necessary to protect the public health or to provide additional safety and effectiveness data for the device.

FDA's MDR requirements also extend to healthcare facilities that use medical devices in providing care to patients, or "device user facilities," which include hospitals, ambulatory surgical facilities, nursing homes, outpatient diagnostic facilities, or outpatient treatment facilities, but not physician offices. A device user facility must report any device-related death to both the FDA and the device manufacturer, or any device-related serious injury to the manufacturer (or, if the manufacturer is unknown, to the FDA) within ten days of the event. Device user facilities are not required to report device malfunctions that would likely cause or contribute to death or serious injury if the malfunction were to recur but may voluntarily report such malfunctions through MedWatch, the FDA's Safety Information and Adverse Event Reporting Program.

To ensure compliance with regulatory requirements, medical device manufacturers are subject to market surveillance and periodic, pre-scheduled and unannounced inspections by the FDA and certain state authorities. Failure to comply with applicable regulatory requirements can result in enforcement action by the FDA, which may lead to any of the following sanctions:

- Warning Letters or Untitled Letters that require corrective action;

- fines and civil penalties;
- unanticipated expenditures;
- delays in approving/clearing or refusal to approve/clear any of our future products;
- FDA refusal to issue certificates to foreign governments needed to export our products for sale in other countries;
- suspension or withdrawal of FDA approval or clearance (as may be applicable);
- product recall or seizure;
- partial suspension or total shutdown of production;
- operating restrictions;
- injunctions or consent decrees; and
- civil or criminal prosecution.

We and any of our contract manufacturers, and some suppliers of components or device accessories, are required to manufacture medical device products in compliance with current good manufacturing practice requirements set forth in the QSR, unless explicitly exempted by regulation. The QSR requires a quality system for the design, manufacture, packaging, labeling, storage, installation, and servicing of marketed devices, and includes extensive requirements with respect to quality management and organization, device design, buildings, equipment, purchase and handling of components or services, production and process controls, packaging and labeling controls, device evaluation, distribution, installation, complaint handling, servicing, and record keeping. The FDA evaluates compliance with the QSR through periodic pre-scheduled or unannounced inspections that may include registered manufacturing facilities of our subcontractors. Following such inspections, FDA may issue reports known as Forms FDA 483 or Notices of Inspectional Observations, which list instances where the FDA inspector believes the manufacturer has failed to comply with applicable regulations and/or procedures. If the observations are sufficiently serious or the manufacturer fails to respond appropriately, the FDA may issue Warning Letters, which are notices of intended enforcement actions against the manufacturer. For less serious violations that may not rise to the level of regulatory significance, FDA may issue Untitled Letters. FDA may take more significant administrative or legal action if a manufacturer continues to be in substantial noncompliance with applicable regulations.

For example, if the FDA believes we or any of our contract manufacturers or regulated suppliers are not in compliance with these requirements and patients are being subjected to serious risks, it can shut down manufacturing operations, require recalls of our medical device products, refuse to approve new marketing applications, initiate legal proceedings to detain or seize products, enjoin future violations, or assess civil and criminal penalties against us or our officers or other employees. Research use only. IVDs that are intended only for use in scientific research are not subject to pre- and post-market controls for medical devices by the FDA, with the exception that they must bear the statement: "For Research Use Only. Not for Use in Diagnostic Procedures." RUO products cannot make any claims related to safety, effectiveness or diagnostic utility, and they cannot be intended for any human clinical diagnostic use. A product labeled RUO but marketed, advertised, sold, or used in any way that indicates the product is actually intended to be used diagnostically may be viewed by the FDA as adulterated and misbranded under the FDC Act and, in such case, would be subject to FDA enforcement actions, including requiring the supplier to seek clearance or approval for the products. Our LDT uses instruments and reagents labeled as RUO in our laboratories.

Laboratory developed tests. LDTs have generally been considered to be a subset of IVDs that are designed, developed, validated and used within a single laboratory. The FDA takes the position that it has the authority to regulate such tests as medical devices under the FDC Act. The FDA has historically exercised enforcement discretion and has not required clearance or approval of LDTs prior to marketing, although some states require review and approval of LDTs before they are offered to their citizens. For instance, New York's CLEP separately approves certain LDTs offered to New York State patients.

In October 2023, the FDA issued a proposed rule aimed at regulating LDTs under the current medical device framework and proposing to phase out its existing enforcement discretion policy for this category of diagnostic tests; the public comment period ended in early December 2023. The proposal envisions that the LDT enforcement policy phase-out process would occur in gradual

stages over a total period of four years, with premarket approval applications for high-risk tests to be submitted by the 3.5-year mark, although more details are expected to be provided with the upcoming final rule. The FDA plans to finalize the rule in April 2024, but it will likely be the subject of litigation challenging the agency's authority to take such action. Affected stakeholders continue to press for a comprehensive legislative solution to create a harmonized paradigm for oversight of LDTs by both the FDA and CMS, instead of implementation of the proposed FDA administrative action, which may be disruptive to the industry and to patient access to certain diagnostic tests.

Separately, federal legislators have been working with stakeholders for several years on a possible bill to reform the regulation of in vitro clinical tests including LDTs. For example, as drafted and re-introduced for consideration by the current Congress, the Verifying Accurate, Leading-edge IVCT Development (VALID Act) would codify into law the term "in vitro clinical test" (IVCT) to create new medical product category separate from medical devices that includes products currently regulated as IVDs as well as LDTs. The VALID Act would also create a new system for labs and hospitals to use to submit their tests electronically to the FDA for approval, which is aimed at reducing the amount of time it takes for the agency to approve such tests, and establish a new program to expedite the development of diagnostic tests that can be used to address a current unmet need for patients.

It is unclear whether the VALID Act would be passed in Congress in its current form or if it or similar legislation would be signed into law by the President. Until the FDA finalizes the proposed LDT rule or the VALID Act or other legislation is passed reforming the federal government's regulation of LDTs, it is unknown how the FDA may regulate our tests or what testing and data may be required to support any required clearance or approval.

We believe that the majority of the tests we currently offer meet the definition of LDTs, as they have been designed, developed and validated for use in a single CLIA certified laboratory. We are in the process of obtaining the requisite approvals for our LDTs in New York.

HIPAA and HITECH

Under the administrative simplification provisions of HIPAA, as amended by the HITECH Act, the United States Department of Health and Human Services issued regulations that establish, among other things, uniform standards governing the conduct of certain electronic healthcare transactions and protecting the privacy and security of protected health information used or disclosed by healthcare providers and other covered entities. Three principal regulations with which we are required to comply have been issued in final form under HIPAA: privacy regulations, security regulations and standards for electronic transactions, which establish standards for common healthcare transactions. The privacy and security regulations were extensively amended in 2013 to incorporate requirements from the HITECH Act.

The privacy regulations cover the use and disclosure of protected health information by healthcare providers and other covered entities. They also set forth certain rights that an individual has with respect to their protected health information maintained by a healthcare provider, including the right to access or amend certain records containing protected health information, or to request restrictions on the use or disclosure of protected health information. The security regulations establish requirements for safeguarding the confidentiality, integrity and availability of protected health information that is electronically transmitted or electronically stored. The HITECH Act, among other things, established certain protected health information security breach notification requirements. A covered entity must notify affected individual(s) and the United States Department of Health and Human Services when there is a breach of unsecured protected health information and in some cases must notify local and/or national media. The HITECH Act also strengthened the civil and criminal penalties that may be imposed against covered entities, business associates, and individuals, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions. In addition, other federal and state laws may govern the privacy and security of health and other information in certain circumstances, many of which differ from each other in significant ways and may not be preempted by HIPAA, thus complicating compliance efforts. The HIPAA privacy and security regulations establish a uniform federal "floor" that healthcare providers must meet and do not supersede state laws that are more stringent or provide individuals with greater rights with respect to the privacy or security of, and access to, their records containing protected health information. Massachusetts, for example, has a state law that protects the privacy and security of personal information of Massachusetts residents that is more prescriptive than HIPAA.

These laws contain significant fines and other penalties for wrongful use or disclosure of protected health information. Additionally, to the extent that we submit electronic healthcare claims and payment transactions that do not comply with the electronic data transmission standards established under HIPAA and the HITECH Act, payments to us may be delayed or denied.

United States Federal and State Fraud and Abuse Laws

In the United States, we must comply with fraud and abuse laws, and we are potentially subject to regulation by various federal, state and local authorities, including CMS, other divisions of the U.S. Department of Health and Human Services (e.g., the Office of Inspector General), the DOJ and individual U.S. Attorney´s Offices within the DOJ, and state and local governments. We also may be subject to foreign fraud and abuse laws.

In the United States, the federal Anti-Kickback Statute prohibits, among other things, knowingly and willfully offering, paying, soliciting, or receiving remuneration to induce or in return for patient referrals for, or purchasing, leasing, ordering or arranging for the purchase, lease or order of, any healthcare item or service reimbursable under a federal healthcare program. Courts have stated that a financial arrangement may violate the Anti-Kickback Statute if any one purpose of the arrangement is to encourage patient referrals or other federal healthcare program business, regardless of whether there are other legitimate purposes for the arrangement. Violations may result in imprisonment, criminal fines, civil money penalties and exclusion from participation in federal healthcare programs. Many states also have anti-kickback law, some of which may apply to items or services reimbursed by any third-party payor, including commercial insurers.

In addition, in October 2018, the Eliminating Kickbacks in Recovery Act of 2018 ("EKRA") was enacted as part of the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act ("SUPPORT Act"). EKRA is an all-payor anti-kickback law that makes it a criminal offense to pay any remuneration to induce referrals to, or in exchange for, patients using the services of a recovery home, a substance use clinical treatment facility, or laboratory. Although it appears that EKRA was intended to reach patient brokering and similar arrangements to induce patronage of substance use recovery and treatment, the language in EKRA is broadly written. Further, certain of EKRA's exceptions are inconsistent with the Anti-Kickback Statute safe harbor regulations. Significantly, EKRA permits the U.S. Department of Justice to issue regulations clarifying EKRA's exceptions or adding additional exceptions, but such regulations have not yet been issued. Further, there is no agency guidance to indicate how and to what extent it will be applied and enforced. We cannot assure you that our relationships with physicians, sales representatives, hospitals, customers, or any other party will not be subject to scrutiny or will survive regulatory challenge under such laws. If imposed for any reason, sanctions under the EKRA could have a negative effect on our business.

The healthcare fraud statute prohibits knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private payors. A violation of this statute is a felony and may result in fines, imprisonment or exclusion from federal healthcare programs such as the Medicare and Medicaid programs. The false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact, or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. A violation of this statute is a felony and may result in fines, imprisonment or exclusion from governmental payor programs.

Finally, another development affecting the healthcare industry is the increased enforcement of the federal False Claims Act and, in particular, actions brought pursuant to the False Claims Act's "whistleblower" or *qui tam* provisions. The False Claims Act imposes liability on any person or entity that, among other things, knowingly presents, or causes to be presented, a false or fraudulent claim for payment by to the federal healthcare. The *qui tam* provisions of the False Claims Act allow a private individual to bring actions on behalf of the federal government alleging that the defendant has defrauded the federal government by submitting a false claim to the federal government and permit such individuals to share in any amounts paid by the entity to the government in fines or settlement. When an entity is determined to have violated the False Claims Act, it may be required to pay up to three times the actual damages sustained by the government, plus substantial per-claim civil penalties, which are also adjusted for inflation.

In addition, various states have enacted false claim laws analogous to the federal False Claims Act, although many of these state laws apply where a claim is submitted to any third-party payor.

Physician Referral Prohibitions

Under a United States federal law directed at "self-referral," commonly known as the "Stark Law," there are prohibitions, with certain exceptions, on referrals for certain designated health services, including laboratory services, that are covered by the Medicare and Medicaid programs by physicians who personally, or through a family member, have an investment or ownership interest in, or a compensation arrangement with, an entity performing the tests. A person who engages in a scheme to circumvent the Stark Law's referral prohibition may be subject to a substantial fine for each such arrangement or scheme. In addition, any person who presents or causes to be presented a claim to the Medicare or Medicaid programs in violation of the Stark Law is subject to substantial per-claim civil monetary penalties, an assessment of up to three times the amount claimed and possible exclusion from participation in

federal healthcare programs. Claims submitted in violation of the Stark Law may not be paid by Medicare, and any person collecting any amounts with respect to any such prohibited bill is obligated to refund such amounts. Many states have comparable laws that are not limited to Medicare and Medicaid referrals.

Corporate Practice of Medicine

Approximately 30 states in the United States have enacted laws prohibiting business corporations, such as us, from practicing medicine and employing or engaging physicians to practice medicine, generally referred to as the prohibition against the corporate practice of medicine. These laws are designed to prevent interference in the medical decision-making process by anyone who is not a licensed physician. For example, California's Medical Board has indicated that determining what diagnostic tests are appropriate for a particular condition and taking responsibility for the ultimate overall care of the patient, including providing treatment options available to the patient, would constitute the unlicensed practice of medicine if performed by an unlicensed person. Violation of these corporate practice of medicine laws may result in civil or criminal fines, as well as sanctions imposed against us and/or the professional through licensure proceedings.

Other United States Regulatory Requirements

Our laboratories are subject to United States federal, state and local regulations relating to the handling and disposal of regulated medical waste, hazardous waste and biohazardous waste, including chemical, biological agents and compounds, blood samples and other human tissue. Typically, we use outside vendors who are contractually obligated to comply with applicable laws and regulations to dispose of such waste. These vendors are licensed or otherwise qualified to handle and dispose of such waste.

The U.S. Occupational Safety and Health Administration has established extensive requirements relating to workplace safety for healthcare employers, including requirements to develop and implement programs to protect workers from exposure to blood-borne pathogens by preventing or minimizing any exposure through needle stick or similar penetrating injuries.

The federal Physician Payments Sunshine Act imposes reporting requirements on manufacturers of certain devices, drugs and biologics for certain payments and transfers of value by them (and in some cases their distributors) to physicians, teaching hospitals and certain advanced non-physician health care practitioners, as well as ownership and investment interests held by physicians and their immediate family members. The reporting program (known as the Open Payments program) is administered by CMS and applies to manufacturers when their products become eligible for reimbursement under a federal healthcare program such as Medicare or Medicaid. We believe we are exempt from these reporting requirements as we manufacture our own LDTs solely for use and by or within our own laboratory. We may become subject to such reporting requirements under the terms of current CMS regulations, however, if enacted federal legislation renders our tests regulated by FDA, or if FDA finalizes its recently initiated notice-and-comment rulemaking to exercise authority over LDTs as medical devices or otherwise requires us to obtain premarket clearance or approval for one or more of our tests.

Civil Monetary Penalties Law

The federal Civil Monetary Penalties Law (the "CMP Law"), prohibits, among other things, (1) the offering or transfer of remuneration to a Medicare or state health care program beneficiary if the person knows or should know it is likely to influence the beneficiary's selection of a particular provider, practitioner, or supplier of services reimbursable by Medicare or a state health care program, unless an exception applies; (2) employing or contracting with an individual or entity that the provider knows or should know is excluded from participation in a federal health care program; (3) billing for services requested by an unlicensed physician or an excluded provider; and (4) billing for medically unnecessary services. The penalties for violating the CMP Law include exclusion, substantial fines, and payment of up to three times the amount billed, depending on the nature of the offense.

European Regulation

European sales of medical and diagnostic devices are subject to European regulations. The time required to obtain clearance or approval by a foreign country may be longer or shorter than that required for FDA clearance or approval, and the requirements may be different. Set forth below are highlights of the key European regulatory schemes applicable to our business.

European Conformity Marking ("CE Mark") and Certifications

The primary regulatory bodies in Europe are the European Parliament and the Council, which have adopted three directives (Directive 90/385/EEC relating to active implantable medical devices, Directive 92/43/EEC on medical devices and Directive 98/79/EG relating to IVD) regulating the design, manufacture, clinical trials, labeling and adverse event reporting for medical and diagnostic devices. Devices that comply with the requirements of the relevant regulation will be entitled to bear the CE Mark indicating that the device conforms to the essential safety and performance requirements of the applicable regulation and, accordingly, can be commercially distributed throughout the member states of the European Union and the contracting states of the European Economic Area. The method of assessing conformity varies depending on the type and class of the product, but normally involves a combination of self-assessment by the manufacturer and a third-party assessment by a notified body, an independent and neutral institution appointed by a country to conduct the conformity assessment. This third-party assessment may consist of an audit of the manufacturer's quality system, review of technical documentation and specific testing of the manufacturer's device. Such an assessment may be required in order for a manufacturer to commercially distribute the product throughout these countries. ISO 13485 certification is a voluntary standard. Quality systems that implement relevant harmonized standards establish the presumption of conformity with the essential requirements for a CE Mark.

We currently have 2 in vitro diagnostic medical devices, CentoCard, and CentoCloud, which are CE-marked in compliance with Regulation (EU) 2017/746 (which became fully effective as of May 26, 2022) and Directive 98/79/EG, respectively. We comply with ISO 13485:2021, as the harmonized standard for quality management systems for medical devices and in vitro diagnostic medical devices.

Currently, there is an ongoing legislative procedure proposing a Regulation of the European Parliament and of the Council laying down harmonized rules on artificial intelligence (Artificial Intelligence Act) and amending certain European Union legislative acts, which would also apply to medical devices. It is currently unclear whether and to what extent the proposal will be enacted.

Laboratory-Developed Tests

As currently a majority of our diagnostic testing is run at our laboratory in Rostock, Germany, the European Union and German legislation on *in vitro* diagnostic medical devices applies. As of May 26, 2022, when the new IVDR became applicable, the general safety and performance requirements set out in Annex I IVDR are applicable also to IVD manufactured and used only within health institutions. Overall, the exemptions for LDTs are now narrowed, as even health institutions that use LDTs, among other institutions, will have to provide information upon request on the use of such devices to their relevant authorities and the particular health institution will have to draw up a declaration which it is required to make publicly available. If those conditions are not met and/or diagnostic tests are manufactured and used only within health institutions but not "on an industrial scale", or – effective from May 26, 2028 – if the health institution cannot justify in its documentation that the target patient group's specific needs cannot be met (or cannot be met at the appropriate level of performance) by an equivalent IVD already available on the EU market, such tests will qualify as IVDs with the IVDR, generally applying with full applicability. Additionally, U.S. regulation applies to our laboratory-developed tests (see "Regulation—Regulation States Regulation—Laboratory-developed tests" for more information).

General Data Protection Regulation

In May 2016, the European Union formally adopted the GDPR, which applied to all EU member states as of May 25, 2018 and replaced the EU Data Protection Directive. The GDPR imposes strict requirements on controllers and processors of personal data, including special protections for "sensitive information," which includes health and genetic information of data subjects residing in the European Union. The GDPR grants individuals the opportunity to object to the processing of their personal information, allows them to request deletion of personal information in certain circumstances, and provides an individual with an express right to seek legal remedies in the event the individual believes his or her rights have been violated. Further, the GDPR imposes strict rules on the transfer of personal data out of the European Union to the United States or other regions that have not been deemed to offer "adequate" privacy protections. It has increased our responsibility and liability in relation to personal data that we process and we may be required to put in place additional mechanisms ensuring compliance with the new EU data protection rules.

The GDPR is a complex law and the regulatory guidance is still evolving, including with respect to how the GDPR should be applied in the context of transactions from which we may gain access to personal data. Furthermore, many of the countries within the European Union are still in the process of drafting supplementary data protection legislation in key fields where the GDPR allows for national variation, including the fields of clinical study and other health-related information. There is still significant uncertainty related to the manner in which data protection authorities will seek to enforce compliance with GDPR in the medical and research

fields. For example, it is not yet clear the extent to which such authorities will conduct random audits of companies subject to the GDPR in the absence of complaints filed by individuals who claim their rights have been violated. Enforcement actions to date in other industries has resulted in significant fines and other penalties. Failure to comply with the requirements of the GDPR and the related national data protection laws of EU member states, which may deviate slightly from the GDPR, may result in material fines.

European Fraud and Abuse Laws

In Europe, various countries have adopted anti-bribery laws providing for severe consequences, in the form of criminal penalties and/or significant fines, for individuals and/or companies committing a bribery offense. Violations of these anti-bribery laws, or allegations of such violations, could have a negative impact on our business, results of operations and reputation. For instance, in the United Kingdom, under the Bribery Act 2010, which went into effect in July 2011, a bribery occurs when a person offers, gives, or promises to give a financial or other advantage to induce or reward another individual to improperly perform certain functions or activities, including any function of a public nature. Bribery of foreign public officials also falls within the scope of the Bribery Act 2010. Under the new regime, an individual found in violation of the Bribery Act 2010 faces imprisonment of up to 10 years. In addition, the individual can be subject to an unlimited fine, as can commercial organizations for failure to prevent bribery.

In Germany, interactions between pharmaceutical and medical device companies and physicians, other healthcare professionals and healthcare organizations are subject to the general criminal law regime covering anti-bribery in the public and private sectors, respectively, as well as to more recently enacted specific provisions in the German Criminal Code (Strafgesetzbuch – StGB) covering anti-bribery in the healthcare sector in connection with the prescription and procurement of medicinal products and medical devices and the allocation of patients or material for diagnostic purposes. Obligations to report payments to healthcare professionals or healthcare organizations are currently limited to members of certain industry associations. Marketplace activities and medical claims are regulated by the Healthcare Advertising Act (Heilmittelwerbegesetz – HWG) and the Act against Unfair Competition (Gesetz gegen unlauteren Wettbewerb – UWG) allowing competitors, among others, to seek interim injunctions in ex-parte proceedings, and by consumer protection laws.

Violations of these laws may subject us to criminal, civil and administrative sanctions including monetary penalties, damages, fines, injunctions, disgorgement, individual imprisonment and exclusion from participation in government funded healthcare programs, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of noncompliance with these laws, reputational harm, and we may be required to curtail or restructure our operations. Moreover, we expect that there will continue to be federal, and state and foreign laws and regulations, proposed and implemented, that could impact our future operations and business.

Competition

We believe, for our core business, that we are the company offering the most comprehensive services to both diagnostics and pharmaceutical partners in the rare and neurodegenerative disease field, with highly curated data combining multiomic datasets and proprietary biomarkers. Our principal competitors are existing mainstream diagnostic companies or companies specializing in certain rare diseases, as well as cloud-based bioinformatic companies and entities that offer open-source, uncurated genetic databases. However, these companies do not offer curated information or as broad of a testing portfolio for rare diseases in as many geographical regions as we do. For example, we have found that the genetic mutation causing the same rare diseases and the phenotypical patterns may vary depending on the ethnicity of the patients, which we have identified based on our global data sets. Such unique insights may not be available to other companies that do not have the same global and diversified scope of patient data.

Our principal competitors in our Diagnostics segment include mainstream diagnostic testing companies as well as labs or hospital conglomerates which offer similar services. In our Pharmaceutical segment, our competitors include companies offering services to pharmaceutical companies.

With the continuous development of NGS technology, the cost of genetic sequencing is anticipated to decrease, and there may be companies intending to compete with us by performing sequencing at lower prices in order to obtain the relevant data to construct a similar database and repository. However, given the current limitations in the rare disease field, as well as the required quantity and quality of the data in order to make any relevant analysis, we believe the CENTOGENE Biodatabank is the leading real-world integrated multiomic data repository in rare and neurodegenerative diseases, due to its focus, data quantity, and data diversity (ethnic, geographic, etc.).

C. Organizational Structure

Our parent company is Centogene N.V. (the "Company"). Centogene B.V. was incorporated on October 11, 2018. In connection with our initial public offering which closed on November 12, 2019, we executed a corporate reorganization whereby Centogene B.V. was converted into Centogene N.V., and Centogene N.V. became the holding company for Centogene AG (now Centogene GmbH).

Our major subsidiaries are listed below.

Name	Country in which primary activities are pursued	Equity interest (%)	
		Dec 31, 2023	Dec 31, 2022
Centogene GmbH [1]	Germany	100	100
Centogene FZ-LLC	United Arab Emirates	100	100
Centogene US, LLC	USA	100	100
Centogene GmbH [2]	Austria	—	100
Centogene India Pvt. Ltd.	India	100	100
Centogene Switzerland AG	Switzerland	100	100
CentoSafe B.V.	Netherlands	100	100
Centogene d.o.o. Belgrade	Serbia	100	100
Dr. Bauer Laboratoriums GmbH[4]	Germany	—	—
Genomics Innovations Company Limited[3]	United Arab Emirates	20	—

(1) Centogene IP GmbH and Centogene Shared Service GmbH were merged with Centogene GmbH on January 1, 2021.
(2) The Group acquired the remaining 10% of Centogene GmbH in 2022 and wound it down in 2023.
(3) See note 24 to the Consolidated Financial Statements – List of subsidiaries.
(4) See note 4 to the Consolidated Financial Statements – Basis of consolidation.

D. Property, Plants and Equipment

Our headquarters are located in Rostock, Germany, where we occupy approximately 8,500 square meters of office and laboratory space that was originally constructed by us. In July 2019, Centogene AG (now Centogene GmbH) entered into a sale and leaseback transaction, pursuant to which we sold our Rostock headquarters building to a third party for EUR 24,000 thousand. We then leased the building from the third party for a period of 12 years at a fixed rate per month with the option to extend twice. In addition, a bank guarantee of EUR 3,000 thousand (which we have secured by cash deposit of EUR 1,500 thousand) is required to be maintained during the lease period. In February 2020, we entered into another lease contract for the further expansion of our Rostock headquarters. The additional lease contract covers a total area of approximately 2,850 square meters of offices, staff facilities and storage spaces. In July 2022, we replaced this contract with a new lease contract for the further expansion of our Rostock headquarters. The additional lease contract covers a total area of approximately 1,474 square meters of offices, staff facilities and storage spaces, and will commence in 2025, when the building is expected to be completed by the lessor. The lease is charged at a fixed rate and covers a fixed period of five years, with the option to extend once for another five years. The lease cannot be terminated during the fixed five-year period, but we are permitted to sub-lease to a third party.

In September 2018, we also opened an office and laboratory facility in Cambridge, Massachusetts. We rented the premises with a two-year lease covering approximately 168 square meters. In June 2019, we rented additional premises of approximately 194 square meters. In July 2021, we reduced the premises to approximately 51 square meters. The lease ended in June 30, 2023 and we now use another facility within the area for our U.S. Administrative office. We do not have any laboratory in the U.S.

Our laboratory in Rostock, Germany is equipped with the most advanced technologies for clinical diagnostics, clinical studies and research and development. To further enhance flexibility in capital management, we may purchase some of the leased laboratory equipment. These leases usually cover a period of two to four years, and our obligations under these leases are secured by the lessor's title to the leased assets.

In addition to our laboratory, we have sales and administrative offices located in Berlin (Germany), Cambridge (Massachusetts, United States), Belgrade (Serbia), Dubai (United Arab Emirates), Delhi (India) and Zug (Switzerland), allowing us to further expand our international footprint. Considering the continuous expansion of our business, we relocated our office to Berlin, Germany in October 2019. The new office covers an area of approximately 1,770 square meters and was leased for a period of

12 years without an extension option. Until the end of the lease period for our Berlin, Germany office, we must provide a bank guarantee of EUR 257 thousand (which we collateralized with a cash deposit of EUR 257 thousand).

As of December 31, 2023, our Property Plant and Equipment is pledged to Oxford debt, resulting from the Oxford Loan Agreement.

We are not aware of any environmental issues or other constraints that would materially impact the intended use of our facilities.

As of December 31, 2023, we employed approximately 493 highly qualified personnel (including consultants) from 61 nationalities.

4. **Operating and Financial Review and Prospects**

A. Operating Results

The following discussion of our financial condition and results of operations should be read in conjunction with Centogene's audited consolidated financial statements as of December 31, 2023 and 2022 and for the years ended December 31, 2023, 2022 and 2021 and the notes thereto, included elsewhere in this Annual Report. The following discussion is based on our financial information prepared in accordance with IFRS as issued by the IASB, which may differ in material respects from generally accepted accounting principles in the United States and other jurisdictions. The following discussion includes forward-looking statements that involve risks, uncertainties and assumptions. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors, including but not limited to those described under "Risk Factors" and elsewhere in this Annual Report.

Overview

We are a commercial-stage company with our core businesses focused on rare and neurodegenerative diseases that transforms real-world clinical and genetic or other data into actionable information for patients, physicians and pharmaceutical companies. Our goal is to bring rationality to treatment decisions and to accelerate the development of new orphan drugs by using our knowledge of the global rare disease market, including epidemiological and clinical data and innovative biomarkers. We have developed the CENTOGENE Biodatabank of multimodal data: Sociodemographic, clinical, multiomic data as well as biomaterial included from over 850,000 individuals. As of December 31, 2023, more than 500,000 DBS cards are stored in our own physical biobank which enables retrospective analysis for research consented samples. For approximately 110,000 individuals WES data and for 17,000 individuals WGS data is available. Equally notable is our network of approximately 30,000 active physicians we have been in contact with in the last five years. We believe this represents the only platform that comprehensively analyzes multi-level data to improve the understanding of rare hereditary diseases, which can aid in the identification of patients and improve our pharmaceutical partners' ability to bring orphan drugs to the market.

We have identified three reportable segments:

- ***Pharmaceutical.*** Our Pharmaceutical segment provides a variety of products and services to our pharmaceutical partners, including target and drug screening, clinical development, market access and expansion, as well as CENTOGENE Biodatabank Licenses and Insight Reports. Our information platforms, access to rare and neurodegenerative disease patients and their biomaterials, and our ability to develop proprietary technologies, such as biomarkers, enable us to provide services to our pharmaceutical partners in all phases of the drug development process as well as post commercialization. Revenues from our Pharmaceutical segment are generated primarily from collaboration agreements with our pharmaceutical partners. As of December 31, 2023, we collaborated with 34 pharmaceutical partners. In addition, we have developed three biomarkers covering diseases. Since early 2020, we started to pursue a metabolomics approach for establishing a biomarker discovery pipeline for rare hereditary diseases. Our new approach will include a tandem mass spectrometry methodology and AI and, combined with the large volume of datasets in the CENTOGENE Biodatabank, has proven successful in the identification of new biomarkers. The new biomarker candidates are identified and then further validated and optimized in epidemiological clinical trials.

- ***Diagnostics.*** Our Diagnostics segment provides targeted genetic sequencing and diagnostics services to our clients worldwide, who are typically physicians, laboratories or hospitals, either directly or through distributors. As of December 31, 2021, we believe we offer the broadest diagnostic testing portfolio for rare diseases, covering over 19,000

genes using approximately 5,000 different tests. Our key products are our WGS and WES, as well as our multiomic testing solution, In turn, the data collected from our diagnostics services and biomaterials allow us to continue to grow the CENTOGENE Biodatabank.

- ***Joint Venture.*** On June 26, 2023, the Company entered into a joint venture agreement (the "Joint Venture Agreement") dated June 26, 2023 with Pharmaceutical Investment Company ("PIC" or "Lifera"), a closed joint stock company incorporated pursuant to the laws of Saudi Arabia and a wholly-owned subsidiary of the Public Investment Fund (PIF) based in Riyadh, to form a joint venture under the laws of Saudi Arabia. According to the joint venture agreement, the founding capital is to be provided 80% (SAR 80,000,000) by PIC and 20% (SAR 20,000,000) by the Company and will be used to finance business operations, including the establishment of a laboratory competence center in Saudi Arabia ("KSA"). Pursuant to the Joint Venture Agreement, and subject to the terms and conditions contained therein, the Company and PIC agreed to establish a limited liability company in Saudi Arabia (the "JV"), the terms of which also include ancillary agreements pertaining to a Technology Transfer and Intellectual Property License Agreement, a Consultancy Agreement and a Laboratory Services Agreement. On November 20, 2023, Genomics Innovations Company Limited (the "JV") was fully formed as a limited liability company organized under the laws of the Kingdom of Saudi Arabia. Management has analyzed the terms included in the contract analyzing the control over the JV under IFRS 10, concluding the Company has no control over the "JV", classifying the investment as a joint venture under IAS28 – refer to Note 15 to the Consolidated Financial Statements. Chief Operating Decision Maker ("CODM") has decided to disclose it as a separate segment. The terms of the Joint Venture Agreement were amended by the parties on May 12, 2024, including a reduction in the Company's interest in the JV in exchange for a cash payment to the Company – see Note 29 to the Consolidated Financial Statements for additional details about such amendment.

We discontinued our COVID-19 business in the three months ended March 31, 2022:

- ***COVID-19 testing.*** While not a core business, due to its growth and financial significance in relation to our total activities, our COVID-19 testing business was managed and reported as a separate segment since the third quarter of 2020. We started offering COVID-19 testing in March 2020. Our initial COVID-19 test was a molecular diagnostic test performed for the in vitro qualitative detection of RNA from the SARS-CoV-2 in oropharyngeal samples from presymptomatic probands according to the recommended testing by public health authority guidelines. It was also validated in our CAP/CLIA/ISO certified analytical laboratory and received EUA from the FDA for use by authorized laboratories. The majority of these tests were performed in airport locations at the Frankfurt, Hamburg, Dusseldorf, and Berlin airports. Furthermore, tests were offered through collaborations with the state government and other companies. This segment was fully phased out in the first quarter of 2022 and is therefore presented as discontinued operations.

Our revenue for the year ended December 31, 2023, was EUR 48,536 thousand, an increase of EUR 1,063 thousand, or 2%, from EUR 47,473 thousand for the year ended December 31, 2022. Our revenue for the year ended December 31, 2022, was EUR 47,473 thousand, an increase of EUR 5,239 thousand, or 12.4%, from EUR 42,234 thousand for the year ended December 31, 2021. Our Pharmaceutical and, Diagnostics segments contributed 30.5% and 69.5%, respectively, of our total revenues for the year ended December 31, 2023, as compared to 33.9%, and 66.1% respectively, of our total revenues for the year ended December 31, 2022, and 37.0%, and 63.0% respectively, of our total revenues for the year ended December 31, 2021. Test requests received by our Pharmaceutical and Diagnostics segments for the year ended December 31, 2023, were approximately 35.4 thousand and 81.5 thousand, respectively, representing a decrease of approximately 7% and an increase of 18%, respectively as compared to approximately 38.1 thousand and 69.2 thousand test requests, respectively, received for the year ended December 31, 2022.

Test requests received by our Pharmaceutical and Diagnostic segments for the year ended December 31, 2022, were approximately 38.1 thousand and 69.2 thousand, respectively, representing a decrease of approximately 30.8% and an increase of approximately 21.4%, respectively, as compared to approximately 54.1 thousand and 57.1 thousand test requests, respectively, received for the year ended December 31, 2021.

Since the inception of our business, our research and development has been substantially devoted to our biomarkers and interpretation solutions. For the year ended December 31, 2023, we incurred research and development expenses of EUR 12,361 thousand, a decrease of EUR 5,127 thousand, or 29.3%, from EUR 17,488 thousand for the year ended December 31, 2022, mainly driven by a decrease in test during 2023, together with a reduction on IT R&D expenses in the current year compared to the prior year. For the year ended December 31, 2022, we incurred research and development expenses of EUR 17,488 thousand, a decrease of EUR 1,809 thousand, or 9.4% from EUR 19,297 thousand for the year ended December 31, 2021. During the years ended December 31,

2023, 2022 and 2021, we received test requests of approximately 1,340, 3,415 and 8,437, respectively, for our internal research and development projects.

Our loss before taxes from continuing operations for the year ended December 31, 2023, was EUR 35,245 thousand, a decrease of EUR 3,351 thousand, or 9%, from EUR 38,596 thousand for the year ended December 31, 2022. Our loss before taxes from continuing operations for the year ended December 31, 2022, decreased by EUR 18,826 thousand, or 33%, from EUR 57,422 thousand for the year ended December 31, 2021. Our loss before taxes for the year ended December 31, 2023, also included share-based compensation expenses of EUR 2,929 thousand, as compared to EUR (16) thousand for the year ended December 31, 2022, and EUR 8,035 thousand for the year ended December 31, 2021.

Important Developments

Sale of USD 15.0 million of Accounts Receivables to Lifera

On May 12, 2024, we completed a transaction with Pharmaceutical Investment Company ("PIC" or "Lifera"), a closed joint stock company incorporated pursuant to the laws of the Kingdom of Saudi Arabia ("KSA") and a wholly-owned subsidiary of the Public Investment Fund based in Riyadh, with respect to the sale of certain Company accounts receivables ("PIC AR Sale") and related transactions for proceeds of approximately USD 15.0 million (EUR 13.9 million) (not including additional process from our sale of a JV interest). PIC has agreed to purchase certain of Centogene's accounts receivable in the KSA for an aggregate purchase price of USD 15.0 million payable in three equal tranches on or about May 13, 2024, May 31, 2024, and June 30, 2024. As a result of the foregoing, we now estimate that our cash runway extends for at least the next twelve (12) months. Specifically, based on our existing cash on hand and assuming the receipt of the proceeds from all three tranches of the PIC AR Sale and the achievement of our 2024 revenue guidance, we believe that we will be able to fund our operations, as currently planned (including amortization payments due under the Loan and Security Agreement with our senior lender Oxford Finance LLC ("Oxford") commencing March 1, 2025), through the second quarter of 2025. While we believe our cash from operations and other assumptions are reasonable, there can be no assurances in this regard. For more information, see Note 2.2 to the Consolidated Financial Statements. *Update on Process to Review Strategic Alternatives*

On February 28, 2024, we announced a process to explore strategic alternatives, we engaged an investment banking firm to advise us in connection with this process. Please refer to Note 29 to the Consolidated Financial Statements for further details related to the Transaction signed on November 12, 2024.

Going Concern

For the going concern disclosures, please refer to Note 2.2 to the Consolidated Financial Statements for further detail, in which the events are disclosed which result in the existence of a material uncertainty that raises significant doubt about company's ability to continue as a going concern.

Effect of COVID-19 Pandemic

The COVID-19 pandemic had a global impact and caused many governments to maintain measures, such as quarantines, travel restrictions, closures of borders, and mandatory maintenance of physical distance between individuals to slow the spread of the outbreak. During the three months ended March 31, 2022, we continued the COVID-19 testing activities that started in 2020. There were no investments made in the COVID-19 business in the three months ended March 31, 2022. Total investments in COVID-19 testing as of December 31, 2021, amounted to €2,834 thousand, of which €2,480 thousand related to property, plant and equipment and EUR 354 thousand to intangible assets. These investments have been fully depreciated and amortized as of March 31, 2022.

Total gross profit for our COVID-19 business for the three months ended March 31, 2022, was EUR 4,263 thousand representing a decrease of EUR 6,169 thousand or of 59.1% as compared to EUR 10,432 thousand in the prior year period. The decrease in gross profit within the COVID-19 business (which we report as a discontinued operation) is primarily due to the significant decline in COVID-19 testing orders.

During 2021 management updated its long-term outlook for the COVID-19 testing business, which led to management's decision to initiate a wind down process in which lease contracts at unprofitable COVID-19 testing sites would not be renewed and a laboratory in Hamburg would be closed. Similarly, we significantly reduced COVID-19 related inventory levels to align with the needs of the

remaining test sites and laboratories. As at March 31, 2022, all COVID-19 operations at testing sites had ceased as all COVID-19 testing site contracts expired in the first quarter of 2022.

For further information, see "Note 9 – Discontinued operations" to our consolidated financial statements as of December 31, 2023 and December 31, 2022.

Research and Development

We continued to expand our medical and genetic knowledge of rare genetic diseases, with the vision of shortening the diagnostics odyssey of rare disease patients and accelerating the development of new orphan drugs. In particular, we focused on the following collaborations during the year:

- Collaboration with Evotec SE ("Evotec") in the research, discovery and development of medical solutions for rare diseases related to the protein target glucocerebrosidase ("GBA"), a well-known enzyme deficiency linked to Gaucher disease. This collaboration combines our global proprietary rare disease platform and biomarker expertise, with a jointly developed induced pluripotent stem cell ("iPSC") platform, drug discovery and development capabilities of Evotec.

- Collaboration with PTC Therapeutic, Inc ("PTC") to expand our existing partnership to several new regions including many countries in Europe, the Middle East, and Latin America to provide genetic testing and 3-O-Methyldopa (3-OMD) biomarker analytics to help identify patients with Aromatic L-amino Acid Decarboxylase (AADC) deficiency.

- Collaboration with Alnylam Pharmaceuticals ("Alnylam") to expand its existing epidemiology and biomarker work through the initiation of a new clinical program (TRAMoniTTR) focused on Hereditary Transthyretin Amyloidosis (hATTR). Through the newly executed agreement, the Company will provide specific analyses regarding anonymized TTR patient populations with a focus on long-term longitudinal data.

Financial Operations Overview

Revenue

Our revenue is principally derived from the provision of pharmaceutical solutions and diagnostic tests enabled by our knowledge and interpretation-based platform.

We expect our revenue to increase over time as we continue to expand our commercial efforts internationally with a focus on further growth in our Pharmaceutical segment. We expect revenue from our Diagnostics segment to grow in absolute terms but decrease as a proportion of total revenue if there is growth in our Pharmaceutical segment.

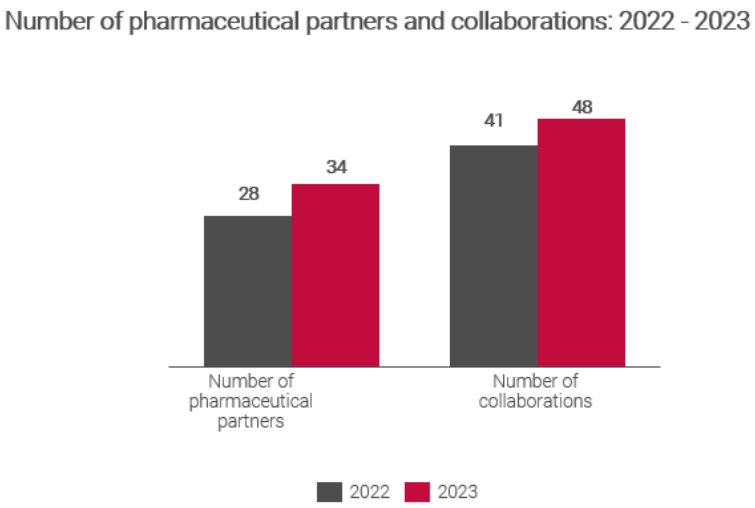
Changes in revenue mix between our Pharmaceutical and Diagnostic segments can impact our results period over period. We typically incur lower costs for the provision of solutions in our Pharmaceutical segment and therefore generate higher returns from our Pharmaceutical segment contracts than from our Diagnostics segment contracts.

Pharmaceutical segment

We generate revenue in our Pharmaceutical segment from the solutions we provide to our pharmaceutical partners to accelerate their development of treatments for rare hereditary diseases. Our data-driven studies are not only able to provide valuable information for drug target discovery, but also allow a better and more targeted design of clinical trials afterwards. Our biomarkers can be used not only in effective identification of rare disease patients, but also used to demonstrate the efficacy of the drugs, perform longitudinal monitoring and titrate the dosage needed of individual rare disease patients. Our partnership agreements are structured on a fee per analysis basis, milestone basis, fixed fee basis, royalty basis or a combination of these. We recognize our revenue from the rendering of solutions to our pharmaceutical partners as such service is performed, or upon the achievement of certain milestones if applicable to the partnership agreement.

During the year ended December 31, 2023, we entered into 27 new collaborations and successfully completed 21 collaborations resulting in a total of 48 ongoing collaborations. During the year ended December 31, 2022, we entered into 13 new collaborations and successfully completed 17 collaborations resulting in a total of 41 ongoing collaborations. During the year ended

December 31, 2021, we entered into 18 new collaborations, and successfully completed 39 collaborations resulting in a total of 45 ongoing collaborations.

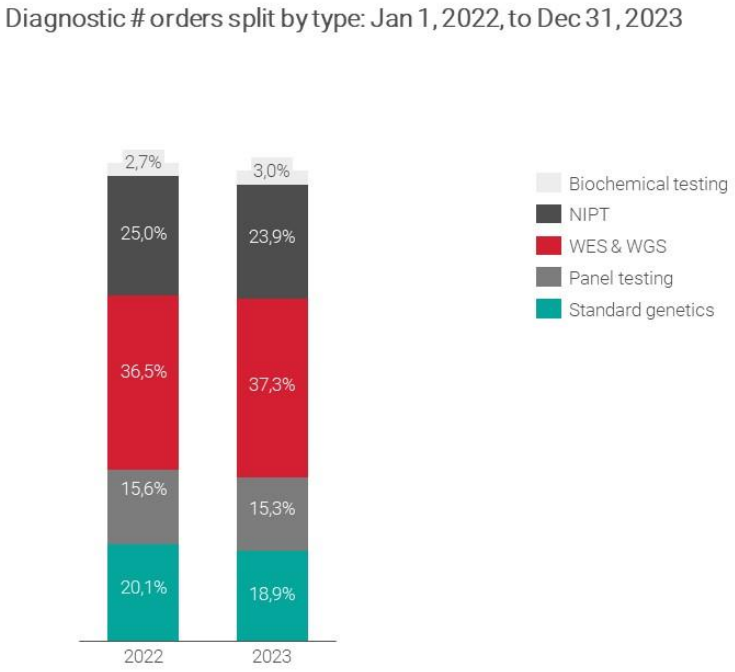


The timing of entry into new contracts with our pharmaceutical partners can be difficult to predict. Accordingly, we can experience different revenue patterns quarter-to-quarter and year-over-year due to the satisfaction of performance obligations involving significant upfront and milestone fees due from our pharmaceutical partners. We recognize revenue for upfront fees at a point in time when the right to use the intellectual property is transferred to the customer, while revenue for milestone payments is recognized over time using an input method based on the work rendered by us, or at a point in time when the applicable provisions for over-time recognition are not present (e.g., the sale of CentoCard filter cards).

During the year ended December 31, 2023, Centogene entered into several collaborations with pharmaceutical partners, of which upfront fees totaling EUR 256k were received. During the year ended December 31, 2022, we entered into collaboration agreements with certain pharmaceutical partners, which resulted in upfront fees payable to us of over EUR 566 thousand for set up fees, are recognized over time and during the partnership period. During the year ended December 31, 2021, we entered into collaboration agreements with certain pharmaceutical partners, which resulted in upfront fees payable to us of over EUR 455 thousand for set up fees, that have been recognized over time and during the partnership period.

Diagnostics segment

We generate revenue in our Diagnostics segment primarily from genetic sequencing and diagnostics services, such as WES and WGS. The test requests received by our Diagnostics segment for the years ended December 31, 2023 and 2022 were split amongst our primary testing products as follows:



We provide these services in over 120 countries either through third-party distributors or directly to our diagnostics clients, who are typically physicians, labs or hospital facilities. Revenues are based on a negotiated price per test or on the basis of agreements to provide certain testing volumes over defined periods. Revenue from the rendering of clinical diagnostic services (sequencing, interpretation and reporting) is recognized over time by reference to the percentage of completion of the service on the reporting date, assessed on the basis of the work rendered. We strategically focus on countries around the globe where the prevalence of rare hereditary diseases is high or the availability of national genetic testing and interpretation is to some extent limited and therefore the complete reimbursement or partial payment by the government for our services is more likely. The major markets for our diagnostics business currently include the Middle East and North Africa region, Scandinavia, parts of Central and Eastern Europe, Latin America, North America and parts of Asia. In most of our markets, our diagnostics tests are billable directly to the party submitting the request for a test to us.

Cost of Sales and Operating Expenses

Our cost of sales and our operating expenses support all of the products and services that we provide to our customers and, as a result, are presented in an aggregate total for the business segments. We allocate certain overhead expenses, such as maintenance and depreciation to cost of sales and operating expense categories based on headcount and facility usage. As a result, overhead expense allocation is reflected in cost of sales and each operating expense category.

Cost of Sales

Cost of sales consists of cost of consumables, supplies and other direct costs such as personnel expenses, depreciation of laboratory equipment, amortization of biomarkers, repair and maintenance costs, shipping costs, as well as certain allocated overhead expenses.

We expect these costs in absolute terms will increase as we grow our revenue but to decrease as a percentage of revenue over time as our Pharmaceutical segment revenue increases and as we continue to implement operational efficiencies. During the year ended December 31, 2023, our cost of sales represented 64.5% of our total revenue, as compared to 58.4% for the year ended December 31, 2022, and 68.0% for the year ended December 31, 2021. The main driver of the increase in the current year is the increase in the price of the consumables used in our business.

Research and Development Expenses

Our research and development ("R&D") expenses consist primarily of costs incurred for the research and development of new products and solutions, in particular our biomarkers, and the development of our IT driven and interpretation-based solutions. In the three fiscal years ended December 31, 2023, 2022 and 2021 we spent EUR 53,406 thousand on research and development, of which EUR 4,260 thousand was capitalized as intangible assets.

Expenses for research activities are recognized through profit or loss in the period in which they are incurred, unless they reach the development stage and prove to be technically and commercially feasible, upon which the expenses are capitalized. With respect to biomarkers, expenses are capitalized when the target validation process is completed and commercialization is probable. With respect to IT driven solutions, expenses are capitalized upon the completion of our internal validation test. Before such dates, any development costs are recognized in profit or loss.

Research and development which we conduct pursuant to our pharmaceutical partnership agreements is typically limited to a specific rare disease. As a result, our research and development expenses may vary substantially from period to period based on the timing of our research and development activities or our pharmaceutical partners, including due to the entry into, renegotiation of or termination of our partnership agreements. Our research and development expenses may also be impacted by changes in regulatory requirements and healthcare policies globally, particularly in respect of the validation and patent application processes that we conduct for our biomarkers.

During the year ended December 31, 2023, our research and development expenses represented 25.5% of our total revenue, as compared to 36.8% for the year ended December 31, 2022, and 45.7% for the year ended December 31, 2021. The decrease is attributable to reduced research and development-based personnel expenses arising as a result of organizational synergies achieved in 2021 and 2022. We continue to innovate our information platform, develop additional products and solutions and expand our data management resources.

General Administrative Expenses

Our general administrative expenses include costs for our personnel, premises, IT operations, accounting and finance, legal and human resources functions. These expenses consist principally of salaries, bonuses, employee benefits, travel, and share-based compensation, as well as professional services fees such as consulting, audit, tax and legal fees and general corporate costs, insurance costs and allocated overhead expenses. We account for all general administrative expenses as incurred.

During the year ended December 31, 2023, our general administrative expenses represented 67.1% of our total revenue, as compared to 68.6% for the year ended December 31, 2022, and 103.0% for the year ended December 31, 2021. The decrease was mainly related to the decrease in general administrative related personnel expenses of which the primary contributor was a decrease in share-based payments expenses. Additionally, the reversal is attributable to reductions in senior management headcount as well as synergies achieved from the restructuring implemented since 2021.

Selling Expenses

Our selling expenses consist of costs from our sales organization, which includes our direct sales force and sales management, client services, distributor relations, marketing and business development personnel. These expenses primarily include salaries, commissions, bonuses, employee benefits and travel, as well as marketing and educational activities and allocated overhead expenses. We expense all selling expenses as incurred.

During the year ended December 31, 2023, selling expenses represented 25.9% of our total revenue, as compared to 20.9% for the year ended December 31, 2022, and 22.1% for the year ended December 31, 2021. The increase was mainly due to the strategic buildup of the Pharmaceutical team as well as increased sales commissions paid in the Diagnostics segment. We expect that our selling expenses will continue to grow as we continue to increase our business footprint and expand our business development efforts in our Pharmaceutical segment.

Other Operating Income / (Expenses)

Other operating income and expenses primarily includes the income coming from the sale of Intellectual Property License Agreement ("IP") to JV (Note 8.1 and 15 to the Consolidated Financial Statements). Additionally, it includes government grants and gain on disposal of property, plant and equipment.

Government grants contain performance-based grants to subsidize research, development and innovation in the state of Mecklenburg-Western Pomerania from funds granted by the European Regional Development Fund ("R&D Grants"). Furthermore, government grants contain investment grants related to the construction of our headquarters in Rostock, Germany in prior years and

purchase of equipment for laboratory atomization ("Investment Grants"). R&D Grants that compensate our research and development expenses are recognized directly in profit or loss, while Investment Grants are initially recognized as deferred income and subsequently released to profit or loss on a systematic basis over the useful life of the related asset. We received different government grants in the state of Mecklenburg-Western Pomerania from funds granted by the European Regional Development Fund to subsidize our research, development and innovation.

During the year ended December 31, 2023, we received R&D Grants of EUR nil thousand, as compared to EUR 506 thousand and EUR 168 thousand for the year ended December 31, 2022 and December 31, 2021, respectively. The government grants that we receive, can fluctuate from period to period.

Results of Operations

Year Ended December 31, 2023 Compared to Year Ended December 31, 2022

	For the Years Ended December 31,	
	2023	2022
	(€ in thousands)	
Consolidated statements of comprehensive loss:		
Revenue	48,536	47,473
Cost of sales	31,287	27,712
Gross profit	**17,249**	**19,761**
Research and development expenses	12,361	17,488
General administrative expenses	32,588	32,587
Selling expenses	12,564	9,924
Impairment of financial assets	812	—
Gain on reversal of financial asset impairment	—	432
Other operating income	11,848	3,774
Other operating expenses	431	741
Operating loss	**(29,659)**	**(36,773)**
Losses from investments accounted for by the Equity method	**(302)**	**—**
Changes in fair value of warrants	(159)	2,574
Interest and similar income	3,293	512
Interest and similar expenses	8,418	4,909
Finance costs, net	(5,284)	(1,823)
Loss before taxes from continuing operations	**(35,245)**	**(38,596)**
Income tax expenses	287	107
Loss for the year from continuing operations	**(35,532)**	**(38,703)**
Net income from discontinued operations, net of tax	—	6,862
Loss for the period	**(35,532)**	**(31,841)**
Other comprehensive income/(loss)	(271)	(76)
Total comprehensive loss for the year	**(35,803)**	**(31,917)**

Revenue

Revenue increased by 1,063 thousand, or 2%, to EUR 48,536 thousand for the year ended December 31, 2023 from EUR 47,473 thousand for the year ended December 31, 2022, mainly driven by revenue from our Diagnostic segment.

The breakdown of our revenue by segment was as follows:

	For the Years Ended December 31,	
	2023	2022
Revenue by segment:		
Pharmaceutical	14,802	16,115
Diagnostics	33,734	31,358
Total Revenue	**48,536**	**47,473**

Pharmaceutical segment

Revenues from our Pharmaceutical segment were 14,802 thousand for the year ended December 31, 2023, a decrease of EUR 1,313 thousand, or 8%, from EUR 16,115 thousand for the year ended December 31, 2022. This decrease was primarily driven by a decrease in the price of the operations during the current year together with no new contracts with large volume won during the current year compared to prior years. We collaborated with 34 pharmaceutical partners, as of December 31, 2023, compared to 28 active partners as of December 31, 2022.

During the year ended December 31, 2023, we entered into 27 new collaborations and successfully completed 21 collaborations resulting in a total of 48 active collaborations on December 31, 2023, compared to 45 active collaborations as of December 31, 2022. Revenues from our new collaborations totaled EUR 700 thousand for the year ended December 31, 2023, which upfront fees totaling EUR 256k were received.

During the year ended December 31, 2022, we entered into 13 new collaborations and successfully completed 17 collaborations resulting in a total of 41 active collaborations as of December 31, 2022, compared to 45 active collaborations as of December 31, 2021. Revenues from our new collaborations totaled EUR 1,108 thousand for the year ended December 31, 2022, with upfront payments of EUR 566 thousand related to setup fees. During the year ended December 31, 2021, we entered into 18 new collaborations and completed 39 collaborations. Revenues from our new collaborations totaled EUR 2,323 thousand for the year ended December 31, 2021, with upfront payments of EUR 455 thousand related to setup fees.

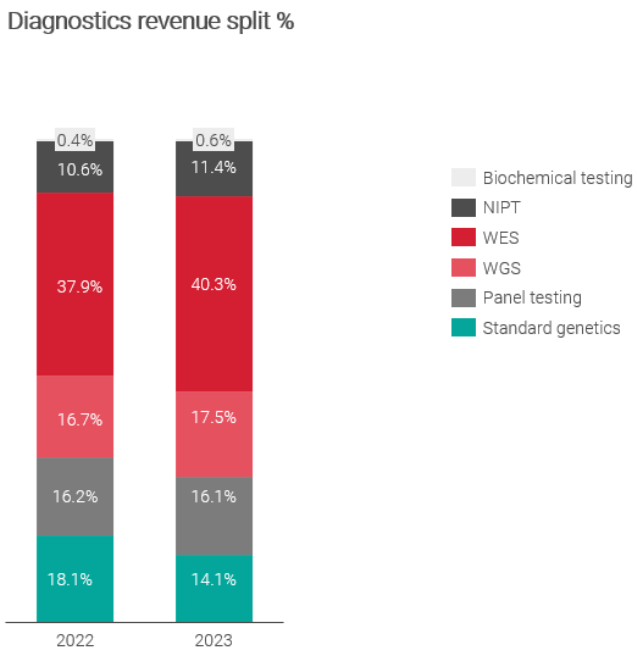
We have been successful in entering into collaborations with pharmaceutical partners in the early stages of drug development, which puts us in a position to provide more support to the development process and increases our potential to secure further collaborations for the same drugs, such as biomarker developments.

During the year ended December 31, 2023, revenues from one pharmaceutical partner represented 12.6% of our total revenues, as compared to one that represented 15.5% for the year ended December 31, 2022.

Diagnostics segment

Revenues from our Diagnostics segment were EUR 33,734 thousand for the year ended December 31, 2023, an increase of EUR 2,376 thousand, or 8%, from EUR 31,358 thousand for the year ended December 31, 2022. We received 81,533 test requests in our Diagnostics segment during the year ended December 31, 2023, representing an increase of approximately 18% as compared to 69,243 test requests received for the year ended December 31, 2022.

For the years ended December 31, 2023 and 2022, our total Diagnostic segment revenues were split amongst our primary testing products as follows:



The increase in revenues was primarily related to an increase in order intakes for panel testing, WES and WGS during the year ended December 31, 2023. Total revenues from panel testing, WES and WGS for the year ended December 31, 2023, amounted to EUR 24,963 thousand, representing an increase of 9.94% as compared to EUR 22,706 thousand for the year ended December 31, 2022. The total number of panel testing, WES and WGS order intakes received in the Diagnostics segment for the year ended December 31, 2023, was 42,846, representing an increase of 18.83% as compared to 36,057 test requests received for the year ended December 31, 2022.

Revenue by geographical region

The breakdown of our revenue from all our segments, in the aggregate, by geographical region was as follows:

	For the Years Ended December 31,	
	2023	2022
	(€ in thousands)	
Revenue by geographical region:		
Europe	7,729	6,288
of which: Germany	*95*	307
of which: Netherlands	*2*	7
Middle East	20,739	19,902
of which: Saudi Arabia	13,379	12,412
North America	14,874	16,591
of which: United States	*14,834*	16,525
Latin America	4,306	3,907
Asia Pacific	888	786
Total Revenue	**48,536**	**47,473**

In cases where our pharmaceutical partners are developing a new rare disease treatment, we generally anticipate that the final approved treatment will be made available globally. As a result, we allocate the revenues of our Pharmaceutical segment by geographical region by reference to the location where each pharmaceutical partner mainly operates, which is based on the region from which most of their revenues are generated. The allocation of revenues in our Diagnostics segment is based on the location of each customer.

Our North America region contributed EUR 14,874 thousand to revenue for the year ended December 31, 2023, a decrease of EUR 1,717 from EUR 16,591 thousand for the year ended December 31, 2022, mainly due to the termination of Medicare program. Revenues from the North America region represented 30.6% of our total revenues for the year ended December 31, 2023, as compared to 34.9% for the year ended December 31, 2022.

Our Middle East region contributed EUR 20,739 thousand to revenue for the year ended December 31, 2023, an increase of EUR 837 thousand, or 4%, from EUR 19,902 thousand for the year ended December 31, 2022. This revenue increase was primarily attributable to the increase in sales of panel testing, WES and WGS tests. Revenues from the Middle East region represented 42.7% of our total revenues for the year ended December 31, 2023, as compared to 41.9% for the year ended December 31, 2022.

Our Europe region contributed EUR 7,729 thousand to revenue for the year ended December 31, 2023, an increase of EUR 1,441 thousand, or 23% from EUR 6,288 thousand for the year ended December 31, 2022. This increase was mainly driven by increased revenues from the Diagnostics segment. Revenues from the Europe region represented 15.9% of our total revenues for the year ended December 31, 2023, as compared to 13.2% for the year ended December 31, 2022.

Cost of Sales

Cost of sales increased by EUR 3,575 thousand, or 13%, to EUR 31,287 thousand for the year ended December 31, 2023, from EUR 27,712 thousand for the year ended December 31, 2022. Cost of sales for the year ended December 31, 2023, represented 64.5% total revenue, an increase of 6.1 percentage points as compared to 58.4% for the year ended December 31, 2022.

Cost of sales incurred by our Pharmaceutical and Diagnostic segments for the year ended December 31, 2023, represented 62.6% and 65.3% of revenues from the respective segments, an increase e of 17.3 percentage points and 0.2 percentage points, respectively, as compared to 45.3% and 65.1%, respectively, for the year ended December 31, 2023. The 17.3 percentage point increase for our Pharmaceutical segment was mainly due to increased personal costs as well as changes in the product mix.

Gross Profit

Our core business segments (Diagnostics and Pharmaceutical segments combined) generated total gross margin of EUR 17,249 thousand or 36% of revenues which represents a decrease of EUR 2,512 thousand or 6.1 percentage points in the year ended December 31, 2023, as compared to EUR 19,761 thousand or 42% of revenues in the previous year ended December 31, 2022. The decrease is mainly driven by a decrease in pharmaceutical revenue as no new large collaborations were signed during this year together with an increase in cost incurred in reinforcing the selling structure to revert this situation for the following years.

Research and Development Expenses

The table below gives a breakdown of our research and development expenses for the years ended December 31, 2023 and 2022.

	For the Years Ended December 31,	
	2023	2022
	(€ in thousands)	
Wages and salaries and social security expenses	5,479	7,074
IT development costs	3,849	5,654
Depreciation and amortization expenses	1,981	2,927
Development and patent costs	380	747
Others	672	1,086
Total research and development expenses	**12,361**	**17,488**

Research and development expenses decreased by EUR 5,127 thousand, or 29.3%, to EUR 12,361 thousand for the year ended December 31, 2023, from EUR 17,488 thousand for the year ended December 31, 2022. This mainly represents personnel costs, IT-related expenses incurred in our research that do not qualify for capitalization, decreased depreciation and amortization and other costs such as consumables, patent applications, legal costs and external consultant costs.

General Administrative Expenses

The table below gives a breakdown of our general administrative expenses for the years ended December 31, 2023 and 2022.

	For the Years Ended December 31,	
	2023	2022
	(€ in thousands)	
Wages and salaries, social security and termination expenses	9,760	11,155
Share- based payment expenses	2,929	(16)
Legal, audit and consulting expenses	7,742	7,742
Travelling, corporate communication and event expenses	617	1,055
IT operational costs	3,244	2,815
Insurance premiums	2,075	2,956
Recruitment expenses	426	265
Depreciation and amortization expenses	3,415	3,381
Others	2,380	3,234
Total general administrative expenses	**32,588**	**32,587**

General administrative expenses increased by EUR 1 thousand, or 0.0%, to EUR 32,588 thousand for the year ended December 31, 2023, from EUR 32,587 thousand for the year ended December 31, 2022, principally due to an increase in Share Based Payments expense was which offset by some decreases in wages expense. The general administrative expenses included share-based compensation expenses of EUR 2,929 thousand for the year ended December 31, 2023, an increase of EUR 2,945 thousand as compared to EUR (16) thousand for the year ended December 31, 2022.

Selling Expenses

Selling expenses increased by EUR 2,640 thousand, or 26.6%, to EUR 12,564 thousand for the year ended December 31, 2023, from EUR 9,924 thousand for the year ended December 31, 2022, principally due to an increase in personnel expenses.

Impairment of financial assets

There was an impairment expenses for financial assets incurred for the year ended December 31, 2023, representing an increase of EUR 812 thousand from EUR nil for the year ended December 31, 2022.

Gain on reversal of financial asset impairment

The gain on reversal of financial asset impairment for the year ended December 31, 2023 was EUR NIL (December 31, 2022: EUR 432k).

Other Operating Income / (Expenses)

Other operating income increased by EUR 8,074 thousand, or 213.9%, to EUR 11,848 thousand for the year ended December 31, 2023, from EUR 3,774 thousand for the year ended December 31, 2022, principally due to the income received from the sale of "IP" to the "JV" (Note 8 and 15 to the Consolidated Financial Statements). This is also driven by VAT refunds received based on a change made to the VAT tax declarations of Centogene GmbH in agreement with the tax administration in Germany for 2016 to 2019 financial years.

Other operating expenses decreased by EUR 310 thousand, or 41.8%, EUR 431 for the year ended December 31, 2023, from EUR 741 thousand for the year ended December 31, 2022, principally due to foreign exchange differences.

Interest and Similar Income / (Expenses)

Interest and similar income increased by EUR 2,781 thousand to EUR 3,293 thousand for the year ended December 31, 2023, from EUR 512 thousand for the year ended December 31, 2022.

Interest and similar expenses increased by EUR 3,509 thousand, or 71.5%, to EUR 8,418 thousand for the year ended December 31, 2023, from EUR 4,909 thousand for the year ended December 31, 2022, principally due to interest incurred on the Oxford loan as well as foreign currency losses.

Loss Before Taxes for the Year from Continuing Operations

As a result of the factors described above, our loss before taxes for the year ended December 31, 2023 was EUR 35,245 thousand, a decrease of EUR 3,351 thousand, or 8.7%, from EUR 38,596 thousand for the year ended December 31, 2022.

Segment Adjusted EBITDA

Our Segment Adjusted EBITDA was as follows:

	For the Years Ended December 31,	
	2023	2022
	(€ in thousands)	
Segment Adjusted EBITDA:		
Pharmaceutical	1,589	6,802
Diagnostics	5,087	6,438
JV	4,462	—
	11,138	**13,240**

Adjusted EBITDA from our Pharmaceutical segment was EUR 1,589 thousand for the year ended December 31, 2023, a decrease of EUR 5,213 thousand, or 77%, from EUR 6,802 thousand for the year ended December 31, 2022. This decrease was attributable to the decrease in revenues from the Pharmaceutical segment and the higher cost of sale.

Adjusted EBITDA from our Diagnostic segment was EUR 5,087 thousand for the year ended December 31, 2023, a decrease of EUR 1,351 thousand, or 21%, from EUR 6,438 thousand for the year ended December 31, 2022. This decrease was primarily attributable to an increase in cost of sales as well as selling expenses which was mainly attributable to increased sales commissions and sales consulting expenses.

For further information about how we calculate Adjusted EBITDA, how it is used and our reconciliation of segment Adjusted EBITDA to the most comparable IFRS measure of the Group, see "Note 7 — Segment information and revenue from contracts with customers" of our consolidated financial statements as of and for the year ended December 31, 2023.

For the discussion of our results of operations for the year ended December 31, 2021 compared to year ended December 31, 2022, see "Financial Operations Overview —Year Ended December 31, 2021, compared to Year Ended December 31, 2022" included in our annual report for the year ended December 31, 2022, on Form 20-F (File No. 001- 39124) filed with the SEC on May 16, 2023.

B. Liquidity and Capital Resources

Overview

Historically, our main source of liquidity has been our secured loans, municipal loans and government funding of research programs, and proceeds from our initial public offering. In July 2020, we completed the Follow-on Equity Offering and received net offering proceeds, after deducting underwriting discounts and commissions, of EUR 22 million. In January 2022, we entered into the Loan and Security Agreement in the total amount of USD 45.0 million (EUR 40.2 million) and secured an additional EUR 15 million through issuance of common shares and warrants.

In June 2023, the Company entered into a joint venture agreement (the "Joint Venture Agreement") with Pharmaceutical Investment Company ("PIC" or "Lifera"), to form a joint venture under the laws of Saudi Arabia. Pursuant to the Joint Venture Agreement, and subject to the terms and conditions contained therein, the Company and PIC agreed to establish a limited liability company in Saudi Arabia (the "JV"). In connection with the Joint Venture Agreement, Lifera and the Company have to enter into a convertible loan agreement (the "Loan Agreement"), pursuant to which Lifera agrees to loan the Company USD 30.0 million (the "Principal Amount"). The Loan Agreement was signed on October 26, 2023. On October 30, 2023, the Company received the cash of USD 30.0 million (EUR 28.3 million). The loan originally had a term of six months and was expected to automatically convert into equity on the maturity date which was April 26, 2024. Both companies have finalized the incorporation of the JV on November 19, 2023, and related ancillary agreements signed November 27, 2023 – refer to Note 28 to the Consolidated Financial Statements for further details. In addition, the Company received cash inflows of SAR 40 million (EUR 9.4 million) on December 27, 2023, linked to the transfer of data from the Biodatabank relating to information from the region of the Kingdom of Saudi Arabia.

During 2024, management has completed a significant transaction through the sale of receivables with customers in the region of the Kingdom of Saudi Arabia to PIC which provides the Company with a cash injection of approximately USD 15.0 million (EUR 13.9 million). The Company has also entered into a share purchase agreement with PIC in which the Company sold 16% of shares in the JV (retaining a 4% interest), providing a cash injection of approximately SAR 20.0 million (EUR 4.9 million).

In addition, the convertible loan agreement was amended to, among other things, extend the maturity date to a date promptly following the receipt of applicable governmental approvals with respect to the issuance of common shares upon conversion of the loan.

In order to close the transactions mentioned above, we obtained Oxford's consent on May 12, 2024, which included the addition of certain covenants in our Oxford Loan and Security Agreement. Specifically, we agreed to certain near-term timing requirements for the entry into a binding definitive agreement for the sale of the Company by July 15, 2024. This covenant was subsequently amended, and the deadline was extended to the end of November 2024. This covenant is no longer in breach as SPA was signed on November 12, 2024, please see Note 29 to the Consolidated Financial statements.

Following these developments, we believe that we are in compliance with all the other covenants in the Oxford Loan and Security Agreement at this time.

Our known material liquidity needs for periods beyond the next twelve months are described below in "Contractual Obligations."

Contractual Obligations

The table below presents the residual contractual terms of the financial liabilities as of December 31, 2023, including estimated interest payments. The figures are undiscounted gross amounts, including estimated interest payments and interest on undrawn loan funds, but without showing the impact of offsetting.

	Total contractual cash flows	Less than 1 year	Between 1 and 3 years	Between 3 and 5 years	More than 5 years
Secured bank loans	57,598	4,747	22,018	30,833	—
Convertible Loan	28,936	28,936	—	—	—
Lease liabilities	16,577	2,674	5,071	3,381	5,451
Short term and low value leases	109	105	4	—	—
Trade payables and purchase obligations	5,628	5,628	—	—	—
Total	**108,848**	**42,090**	**27,093**	**34,214**	**5,451**

Lease liabilities include leases related to lease contracts for land and buildings, offices as well as various items such as motor vehicles and other equipment which are accounted for according to IFRS 16, and measured at the present value of lease payments over the lease term at the commencement date of the leases.

Lease liabilities also include contractual cash flows in relation to the expansion of the Rostock headquarters that are not accounted for yet. The future lease payments for this non-cancellable lease contract are EUR 105k within one year, EUR 1,272

thousand within five years and EUR 318 thousand thereafter (2022: EUR nil; 2021: EUR 107k within one year; 2022: EUR 1,272k; 2021: EUR 2,370k within five years; and 2022. 318k; 2021: EUR 4,219k thereafter).

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the Securities and Exchange Commission.

Material Transactions

Private Placement of Common Shares and Warrants

On January 31, 2022, we entered into a Securities Purchase Agreement (the "Securities Purchase Agreement") with the purchasers named therein (the "Investors") and a Warrant Agreement (the "Warrant Agreement") with the Investors. Pursuant to the Securities Purchase Agreement and the Warrant Agreement, we agreed to sell to the Investors (i) an aggregate of 4,479,088 common shares at a price per share of USD 3.73, and (ii) warrants initially exercisable for the purchase of up to an aggregate of 1,343,727 additional common shares at an initial exercise price per common share of USD 7.72 (the "Warrants"), for aggregate gross proceeds of EUR 15.0 million. The Warrants are exercisable immediately as of the date of issuance and will expire on December 31, 2026 and it is accounted for as liability.

The Securities Purchase Agreement and the Warrant Agreement contain customary representations and warranties from the Company and the Investors and customary closing conditions. The closing of the Private Placement occurred on January 31, 2022 (the "Closing Date").

The Company also agreed pursuant to the Securities Purchase Agreement and the Warrant Agreement, among other things, to indemnify the Investors from certain liabilities arising out of or based in whole or in part on the inaccuracy of the representations and warranties of the Company contained in those respective agreements or the failure of the Company to perform its obligations thereunder.

Each of the Investors is a party to the Company's existing Registration Rights Agreement, dated November 12, 2019 (as amended, the "Registration Rights Agreement") (one Investor having executed a joinder thereto prior to the Closing Date). Pursuant to the Registration Rights Agreement, we have agreed under certain circumstances to file a registration statement to register the resale of the securities held by such Investors, subject to certain exceptions, as well as to cooperate in certain public offerings of such securities.

Loan and Security Agreement

On January 31, 2022 (the "Closing Date"), the Company, Centogene GmbH, CentoSafe B.V. and Centogene US, LLC (together, the "Borrowers"), entered into the Loan and Security Agreement with Oxford Finance LLC and the other financial institutions or entities from time to time parties to the Loan and Security Agreement (collectively, referred to as "Lenders") and Oxford, in its capacity as collateral agent for itself and the Lenders (in such capacity, "Agent"). Under the Loan and Security Agreement, the Lenders agreed to make available to the Borrowers certain term loans in an aggregate principal amount of up to $45.0 million, subject to funding in two tranches as follows: (a) on the Closing Date, a loan in the aggregate principal amount of $25.0 million (the "Term A Loan") and (b) on and after the Term B Milestone (as defined below) until the earlier of 60 days thereafter and July 31, 2023, a loan in the aggregate principal amount of USD 20.0 million (the "Term B Loan" and collectively with the Term A Loan, the "Term Loans"). The obligations of the Lenders to fund the Term B Loan are subject to our achievement of product revenues from our diagnostics and pharmaceutical services segments of at least USD 50.0 million calculated on a trailing twelve month basis as of the last day of any fiscal month (such achievement, the "Term B Milestone"). As security for the Borrowers' obligations under the Loan and Security Agreement, the Borrowers granted the Lenders a first priority security interest on the Borrowers' assets.

The maturity date of the Term Loans is January 29, 2027, with amortized payments commencing March 1, 2025 in 24 equal monthly payments. The Term Loans bear an interest rate of 7.93% per annum plus the 1-month CME Term SOFR reference rate as published by the CME Group Benchmark Administration Limited (subject to a floor of 0.07% and 4.13% for Term A Loan and Term B Loan, respectively), based on a year consisting of 360 days.

At any time following the Closing Date, the Borrowers may prepay an amount of not less than all of the then outstanding principal balance and all accrued and unpaid interest on the Term Loans, subject to at least fifteen days' prior written notice to the Agent and the payment of a prepayment fee equal to (x) if made on or prior to the first anniversary of the Closing Date, 3.0% of the principal amount being prepaid, (y) if made after the first anniversary of the Closing Date but on or prior to the second anniversary of the Closing Date, 2.0% of the principal amount being prepaid and (z) otherwise, 1.0%.

The Loan and Security Agreement contains customary affirmative covenants, negative covenants and events of default, including covenants and restrictions that, among other things, require the Borrowers to satisfy a financial covenant, restrict Borrowers' ability to transfer cash to their subsidiaries, and in certain circumstances restrict the ability of the Borrowers to incur liens, incur additional indebtedness, engage in mergers and acquisitions, make distributions or make asset sales without the prior written consent of Lenders. A failure to comply with these covenants could permit the Lenders to declare the Borrowers' obligations under the Loan and Security Agreement, together with accrued interest and fees, to be immediately due and payable, plus any applicable additional amounts relating to a prepayment or termination, as described above.

On July 28, 2022, we amended the Loan and Security Agreement to expand the scope of Permitted Indebtedness and Permitted Liens thereunder and each as defined therein. Later that year, we achieved the Term B Milestone and became eligible to draw down the outstanding $20.0 million of commitments under the Term B Loan. On December 22, 2022, we borrowed the Term B Loan and received a net disbursement under the Oxford Facility of $19,697,253.22 after accounting for fees, expenses and accrued interest.

We amended the Loan and Security Agreement for a second time on April 30, 2023 to permit (i) the delivery of our audited consolidated financial statements for the fiscal year ended December 31, 2022 thirty days later than is otherwise required and (ii) the listing of our common shares on NASDAQ Capital Market. The Second Amendment introduced new requirements that (i) we prepay any outstanding loans under the Loan and Security Agreement in an amount of USD 5.0 million (plus fees, interest and expenses, in each case, pursuant to the terms of the Loan and Security Agreement) upon the first new business development or financing transaction we enter and (ii) we maintain at least EUR 9.1 million in unrestricted cash on deposit in collateral accounts subject to Oxford's perfected security interest granted under the Loan and Security Agreement.

On October 26, 2023 a new amendment was signed. This third amendment modified the existing requirements whereby (i) a reduction in interest rate was introduced, and (ii) maturity date was extended (iii) removal of the USD 5.0 million prepayment and (iv) removal of the requirement to hold EUR 9.1 million in unrestricted cash on deposit once the Joint Venture (see Joint Venture Agreement, Note 1 to the Consolidated Financial Statements) has been created and signing of the ancillary agreements.

Lastly, as a result of the transaction signed on November 12, 2024, the Loan Agreement was newly amended. Refer to Note 29 to the Consolidated Financial Statements.

Transactions with PIC

See Notes 15 and 29 to the Consolidated Financial Statements for a description of our transactions with PIC and Oxford.

Comparative Cash Flows

Comparison of the Years Ended December 31, 2023 and 2022

The following table sets forth our cash flows for the periods indicated:

	For the Years Ended December 31,	
	2023	2022
	(€ in thousands)	
Consolidated statements of cash flows from continuing operations		
Cash flow (used in) continuing operating activities	(31,749)	(35,497)
Cash flow (used in)/from continuing investing activities	2,277	(1,553)
Cash flow (used in)/from continuing financing activities	13,044	46,798
Net (decrease)/ increase in cash and cash equivalents	**(16,428)**	**9,749**
Cash and cash equivalents at the beginning of the period	35,951	17,818
Effect of movements in exchange rates on cash held	(424)	(963)
Cash flow from discontinued activities	—	9,348
Cash and cash equivalents at the end of the period	**19,099**	**35,951**

Operating Activities

Our cash flow used in, or from, continuing operating activities primarily relates to changes in the components of our working capital, including cash received from pharmaceutical partners and diagnostics clients, as well payments made to our suppliers.

For the year ended December 31, 2023, cash flow used in continuing operating activities was EUR 31,749 thousand, a decrease of EUR 3,748 thousand as compared to cash flow used in continuing operating activities of EUR 35,497 thousand for the year ended December 31, 2022. The difference was mainly attributable to cost saving measures implemented during the year resulting in improved results from operating activities.

Investing Activities

Our cash flow used in, or from, investing activities mainly consists of investments in the JV and the cash received from the sale of the IP to JV. In addition, it also included cash flow used in, or from, investment in intangible assets, plant, property and equipment, grants received for investments in property, plant and equipment and cash received from disposals of property, plant and equipment. More specifically, cash used in investment activities in our rare and neurodegenerative disease business included mainly costs incurred in the development of new products and solutions, and the development of our IT driven and interpretation-based solutions. It also includes investment in property, plant and equipment used in the laboratories and other business operations.

For the year ended December 31, 2023, cash flow used in continuing investing activities was EUR 2,277 thousand, as compared to cash flow used of EUR 1,553 thousand in continuing investing activities for the year ended December 31, 2022. The increase was mainly due to the cash paid for the investments in subsidiary.

Financing Activities

Our cash flow generated from and used in continuing financing activities primarily relates to the Oxford Loan and Security Agreement and financial lease liabilities for the year ended December 31, 2023.

For the year ended December 31, 2023, cash flow from continuing financing activities was EUR 13,044 thousand, a decrease of EUR 33,754 thousand as compared to cash flow used in continuing financing activities of EUR 46,798 thousand for the year ended December 31, 2022, as in 2022, the Company signed Oxford Loan Agreement.

Cash used in financing activities includes repayment of lease liabilities of EUR 3,095 thousand as of December 31, 2023, a decrease of EUR 1,219 thousand as compared to repayment of EUR 4,314 thousand for the year ended December 31, 2022.

For the discussion of our cash flows for the year ended December 31, 2021, compared to year ended December 31, 2022, see "Comparative Cash Flows —Year Ended December 31, 2021, compared to Year Ended December 31, 2022" included in our annual report for the year ended December 31, 2022, on Form 20-F (File No. 001-39124) filed with the SEC on May 16,2023.

Indebtedness

Revolving Credit Agreements

We have entered into a secured bank overdraft agreements totaling EUR 500 thousand which we use to finance our day-to-day business operations. EUR nil was utilized as of December 31, 2023 but EUR 3,374 thousand was utilized as of December 31, 2022. Our first EUR 500 thousand bank overdraft agreement had an initial floating interest rate of 4.23% per annum (adjusted on EUR IBOR) when utilized as an overdraft facility. This is secured by a term deposit of EUR 500 thousand.

5. Legal proceedings

From time to time we may be involved in legal proceedings that arise in the ordinary course of our business. See Note 28 to the Consolidated Financial Statements for additional information on legal proceedings we were involved in during the period to which the Consolidated Financial Statements pertain. Any future litigation may result in substantial costs and be a distraction to management and our employees. No assurance can be given that future litigation will not have a material adverse effect on our financial position.

6. Controls and Procedures

6.1. Risk management and control systems

Our management board, under the supervision of our supervisory board, is responsible for reviewing the Company's risk management and control systems in relation to the financial reporting by the Company. Our supervisory board has charged our audit committee with the periodic oversight of these risk management and control systems, with reports being provided to the supervisory board. Our audit committee assists the supervisory board, among other things, in reviewing and discussing with the supervisory board and the independent auditor the audit plan as well as our annual audited financial statements and other financial statements prior to the publication , as well as the effectiveness of the Company's internal controls over its financial reporting.

Our success as a business depends on our ability to identify opportunities while assessing and maintaining an appropriate risk appetite. Our risk management considers a variety of risks, including those related to our industry and business, those related to our ongoing relationship with our shareholders and those related to our intellectual property. Our approach to risk management is designed to provide reasonable, but not absolute, assurance that our assets are safeguarded, the risks facing the business are being assessed and mitigated and all information that may be required to be disclosed is reported to our senior management including, where appropriate, to our chief executive officer and our chief financial officer.

6.1.1 Disclosure Controls and Procedures

As required by Rule 13a-15 under the Exchange Act, management, including our Chief Executive Officer and our Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) as of the end of the period covered by this report. Disclosure controls and procedures refer to controls and other procedures designed to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. Disclosure controls and procedures include, without limitations, controls and procedures designed to ensure that information required to be disclosed by us in our reports that we file or submit under the Exchange Act is accumulated and communicated to management, including our principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding our required disclosures.

Based on the foregoing, including the material weaknesses noted below, our Chief Executive Officer and our Chief Financial Officer have concluded that, as of December 31, 2023, the design and operation of our disclosure controls and procedures were not effective at the reasonable assurance level.

6.1.2 Management’s Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Exchange Act. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections or any evaluation or effectiveness for future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

As part of our continued risk assessment and implementation of controls, we identified three material weaknesses related to a lack of effectively designed review and monitoring financial statement close controls, including the lack of accounting policies and personnel with appropriate skills to enable timely and appropriate technical assessments under IFRS, together with the lack of policies and procedures with respect to the review, supervision and monitoring of the accounting and reporting functions; a lack of an effectively designed and operating general IT controls framework (including system interfaces); and a lack of oversight and controls over the work performed by third-party advisors.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2023, using the criteria established in “Internal Control - Integrated Framework (2013)” issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation and the criteria issued by COSO, our management, with the participation of our Chief Executive Officer and Chief Financial Officer, concluded that, as of December 31, 2023, our internal control

over financial reporting was not effective because of the three material weaknesses related to the design and maintenance of effective controls described above, which has not been remediated on December 31, 2023.

During 2023, management continued implementing the corrective actions initiated since 2021 to remediate the material weaknesses identified, by performing updated root cause analyses of the material weaknesses identified in 2022 and 2023, developing a SOX internal control framework, delivering trainings to improve the technical abilities of our team, as well as hiring new qualified personnel from public accounting firms with IFRS experience.

Although the Company has dedicated time and resources to improve the internal control over financial reporting, our remediation efforts are ongoing. We will continue the process of designing corrective actions to remediate the material weaknesses identified, and we will test the design and ongoing operating effectiveness of the new and existing controls in future periods.

With the oversight of the Management Board and our Audit Committee, we are undertaking remediation efforts to address the material weaknesses identified above through the following actions:

- Designing and formalizing policies and procedures to ensure routine and non-routine transactions are sufficiently analyzed and assessed against the requirements of IFRS and our corporate governance standards as part of the financial statement close process, and that contemporaneous documentation is prepared and reviewed in a timely manner.

- Designing and formalizing policies and procedures to ensure appropriate review, supervision and monitoring of the accounting and reporting functions.

- Enhancement and standardization of the financial closing and reporting process and the consideration of prior year adjustments.

- Designing and formalizing general IT General Control policies and procedures, including automation and integration of financially relevant processes, to assist in controlling certain routine processes within the finance function.

- Designing and implementing more robust controls over the review of the work done by the external advisors.

Notwithstanding the identified material weaknesses, our management believes that the financial statements and related notes thereto included in this annual report on Form 20-F fairly present, in all material respects, our financial condition, results of operations and cash flows as of and for the periods presented in accordance with IFRS.

C. Changes in Internal Control Over Financial Reporting

Our management is committed to continuously improve the internal control over financial reporting and will undertake consistent improvements or enhancements on an ongoing basis. During the period covered by this annual report our management has taken steps toward improving our internal controls over financial reporting, aiming to remediate the identified material weaknesses identified in the previous years. However, as a result of the transaction described in Note 29 to the Consolidated Financial Statements, the Company will be liquidated, so compliance with Sarbanes- Oxley 404 Act will not be required.

6.2. Statement by the Management Board

On the basis of reports and information provided to our managing directors, our management board is of the opinion that:

- this report provides sufficient insight into any failings in the effectiveness of the Company's risk management and control systems with respect to strategic, operational, compliance and reporting risks; (refer to chapter 2 and 6.1);

- based on the Company's state of affairs as at the date of this report, it is justified that the Company's financial reporting is prepared on a going concern basis (refer to important development section and to chapter 11.3); and

- this report states the material strategic, operational, compliance and reporting risks and the uncertainties (refer to chapter 2) that the Company faces, to the extent they are relevant to the expectation of the Company's continuity for a period of twelve months after the date of this report (refer to chapter 11.3).

Any material failings in, material changes to, and/or material improvements of the Company's risk management and control systems which have been observed, made and/or planned, respectively, during the fiscal year to which this report relates, have been discussed with our audit committee and with our supervisory board. Also refer to Chapter 2.1 and 2.2 for a comprehensive articulation of the Company's risk management and internal control.

The company does not have effective risk management and control systems in place. The management board is responsible for identifying and managing the risks associated with the company's strategy and activities.

7. CORPORATE GOVERNANCE

Corporate Governance at Centogene is managed via the management board, the supervisory board and through the effective functioning of the Company´s annual general meetings.

The supervisory board is charged with the supervision of the policy of the management board and the general course of affairs of the Company and of the business connected with it. The supervisory board shall provide the management board with advice. In performing their duties, supervisory directors shall be guided by the interests of the Company and of the business connected with it.

The role of the management board is articulated as follows:

1. **Strategic Planning:** The management board is responsible for developing and setting the organization's strategic direction. This involves long-term planning, goal setting, and defining the company's mission and vision.
2. **Decision-Making:** The board makes critical decisions on behalf of the organization. This includes approving budgets, major investments, mergers and acquisitions, and other significant business actions.
3. **Financial Oversight:** The management board is responsible for overseeing the organization's financial health. This includes approving budgets, financial reports, and financial policies, as well as ensuring compliance with financial regulations.
4. **Compliance and Governance:** The management board ensures that the organization operates within legal and regulatory frameworks. They may establish corporate governance practices, ethics policies, and compliance procedures.
5. **Reporting to Stakeholders:** The board communicates the organization's performance, strategy, and financial results to stakeholders, which can include shareholders, employees, customers, and the public.

The Audit Committee, the Nomination and Corporate Governance Committee and the Compensation Committee act with the delegated powers from the supervisory board, each chaired by the respective expert member of the supervisory board. The supervisory board committees act and thus support the supervisory board in accordance with their Committee's Charter that outlines their duties.

Additional information about how Corporate Governance is executed at Centogene can be found at https://investors.centogene.com/corporate-governance/documents-and-charters.

7.1. Dutch Corporate Governance Code

For the fiscal year to which this report relates, the Dutch Corporate Governance Code 2022 (the "DCGC") applied to the Company. The text of the DCGC can be accessed at http://www.mccg.nl.

Except as set out below, during the fiscal year to which this report relates, the Company complied with the principles and best practice provisions of the DCGC, to the extent that these are directed at the management board and the supervisory board.

The Company deviates from the following principles and best practice provisions of the DCGC:

Best Practice 1.2 (Risk Management)

The company does not have effective risk management and control systems in place. The management board is responsible for identifying and managing the risks associated with the company's strategy and activities.

Best Practice 1.3 (Internal audit function)

The Company has not established an internal audit function. The management board has considered whether setting up an internal audit department would be advisable and believes that, as a result of the material weaknesses in our internal control over financial reporting that we have identified (see chapter 6.1 of this Annual Report), a new set of actions including adequate routine operational checks and balances, included into daily tasks and responsibilities, with exhaustive and frequently recurring supervisory review, have been started in 2024.

Best Practice 2.2 (Appointment, Succession and Evaluation)

2.2.6. At least once per year, outside the presence of the management board, the supervisory board should evaluate its own functioning, the functioning of the various committees of the supervisory board and that of the individual supervisory board members, and should discuss the conclusions that are attached to the evaluation. In doing so, attention should be paid to:

i. substantive aspects, conduct and culture, the mutual interaction and collaboration, and the interaction with the management board;

ii. events that occurred in practice from which lessons may be learned; and

iii. desired profile, composition, competencies, and expertise of the supervisory board.

The evaluation should take place periodically under the supervision of an external expert.

This evaluation is currently not being performed.

2.2.7. At least once per year, outside the presence of the management board, the supervisory board should evaluate both the functioning of the management board as a whole and that of the individual management board members and should discuss the conclusions that must be attached to the evaluation, such also in light of the succession of management board members. At least once annually, the management board should also evaluate its own functioning as a whole and that of the individual management board members. This is currently not being performed.

2.2.8. The supervisory board's report should state:

i. how the evaluation of the supervisory board, the various committees and the individual supervisory board members has been carried out;

ii. how the evaluation of the management board and the individual management board members has been carried out;

iii. the main findings and conclusions of the evaluations; and

iv. what has been or will be done with the conclusions from the evaluations.

This evaluation is currently not being performed.

Best practice 2.3 (Organisation of the supervisory board and reports)

The supervisory board should receive from each of the committees a report of their deliberations and findings. In the report of the supervisory board it should comment on how the duties of the committees were carried out in the financial year. In this report, the composition of the committees, the number of committee meetings and the main items discussed at the meetings should be mentioned.

No meetings of the nomination and corporate governance committee were held. These functions were executed by the supervisory board and management board during their respective meetings.

Best Practice 2.4 (Decision making and functioning)

2.4.6. The management board and the supervisory board are currently not conducting an annual review for their own body to identify any aspects with regard to which the supervisory board members and management board members require training or education.

Best Practice 4.3 (Cancelling the binding nature of a nomination or dismissal)

4.3.3. The members of our management board and supervisory board are appointed by the Company's general meeting (the "General Meeting") upon the binding nomination by the supervisory board. The General Meeting may only overrule the binding nomination by a resolution adopted by at least a two-thirds majority of the votes cast, provided such majority represents more than half of the issued share capital.

Similarly, our articles of association provide that a resolution of the General Meeting to suspend or dismiss a (managing or supervisory) director, other than pursuant to and in accordance with a proposal by the supervisory board, will require a two-thirds majority of the votes cast, representing more than half of the issued share capital. Although this is a deviation from the Code that stablish the proportion must not be set higher than one-third, we deemed this is correct as we are making sure the most significant decisions are considering more percentage of accordance.

7.2. Code of conduct and other corporate governance practices

The Company has adopted a code of business conduct and ethics (the "Code of Conduct") which incorporates and refers to core values of the Company, including honesty, integrity, professionalism and fairness, which all of our managing directors, supervisory directors, officers and employees are expected to actively support and observe.

The Code of Conduct addresses that Centogene’s is committed to conduct its business in accordance with the highest business, ethical, moral and legal standards, in good faith, with due care and in the best interests of the group, its businesses and its stakeholders. The Code of Conduct further elaborates on fair dealing, discrimination and harassment. These are the pillars of the company culture that inevitably drive behaviour. Additionally, the company has identified, promulgated and trained its values being i) we care, ii) we collaborate, iii) we innovate, iv) we deliver excellence and v) we act with integrity.

The text of the Company's Code of Conduct and corporate governance principles as well as whistleblowing can be accessed at Company´s website. In addition, periodic trainings and assessment on the Code of Conducts is mandatory for all the employees within the organization for reading, assessing, and signing. The Company does not voluntarily apply other formal codes of conduct or corporate governance practices. The Code of Conduct operated effectively during the year to which this Annual Report pertains.

7.3. General meeting

7.3.1. Functioning of the General Meeting

Annually, at least one general meeting of the Company must be held. This annual general meeting must be held within six months after the end of the Company's fiscal year. A general meeting must also be held within three months after the management board has decided that it is likely that the Company's equity has decreased to or below 50% of its paid up and called up share capital. In addition, without prejudice to the best practice provisions of the DCGC with respect to invoking a 'response period' or the provisions under Dutch law with respect to invoking a 'cooling-off period', a General Meeting must be held when requested by one or more shareholders and/or others with meeting rights under Dutch law collectively representing at least 10% of the Company's issued share capital, provided that certain criteria are met. Any additional General Meeting shall be convened whenever the management board or the supervisory board would so decide. Each General Meeting must be held in Arnhem, Assen, The Hague, Haarlem, 's-Hertogenbosch, Groningen, Leeuwarden, Lelystad, Maastricht, Middelburg, Rotterdam, Schiphol (Haarlemmermeer), Utrecht or Zwolle.

For purposes of determining who have voting rights and/or meeting rights under Dutch law at a General Meeting, the management board may set a record date. The record date, if set, shall be the 28th day prior to that of the General Meeting. Those who have voting rights and/or meeting rights under Dutch law on the record date and are recorded as such in one or more registers designated by the management board shall be considered to have those rights at the General Meeting, irrespective of any changes in the composition of the shareholder base between the record date and the date of the General Meeting. The Company's articles of association require shareholders and others with meeting rights under Dutch law to notify the Company of their identity and their

intention to attend the General Meeting. This notice must be received by the Company ultimately on the seventh day prior to the General Meeting, unless indicated otherwise when such General Meeting is convened.

7.3.2. Powers of the General Meeting

All powers that do not vest in the management board or the supervisory board pursuant to applicable law, the Company's articles of association or otherwise, vest in the Company's General Meeting. The main powers of the General Meeting include, subject in each case to the applicable provisions in the Company's articles of association:

- the appointment, suspension and dismissal of managing directors and supervisory directors;
- the approval of certain resolutions of the management board concerning a material change to the identity or the character of the Company or its business;
- the reduction of the Company's issued share capital through a decrease of the nominal value, or cancellation, of shares in its capital;
- the adoption of the Company's statutory annual accounts;
- amendments of the financial statements after issue;
- the appointment of the Dutch independent auditor to examine the Company's statutory annual accounts;
- amendments to the Company's articles of association;
- approving a merger or demerger by the Company, without prejudice to the authority of the management board to resolve on certain types of mergers and demergers if certain requirements are met; and
- the dissolution of the Company.

In addition, the General Meeting has the right, and the management board and the supervisory board must provide, any information reasonably requested by the General Meeting, unless this would be contrary to an overriding interest of the Company.

7.3.3. Shareholder rights

Each share in the Company's capital carries one vote. Shareholders, irrespective of whether or not they have voting rights, have meeting rights under Dutch law (including the right to attend and address the General Meeting, subject to the concept of a record date as described in chapter 7.3.1). Furthermore, each share in the Company's capital carries an entitlement to dividends and other distributions as set forth in the Company's articles of association. Pursuant to the Company's articles of association, any such dividend or other distribution shall be payable on such date as determined by the management board and the management board may also set a record date for determining who are entitled to receive any such dividend or other distribution (irrespective of subsequent changes in the shareholder base). The record date for dividends and other distributions shall not be earlier than the date on which the dividend or other distribution is announced. In addition, shareholders have those rights awarded to them by applicable law.

7.4. Management board

The management board is charged with managing the Company's affairs, which includes setting the Company's policies and strategy. In performing their duties, our managing directors shall be guided by the interests of the Company and of the business connected with it.

Our management board has developed a view on sustainable long-term value creation by the Company and has formulated a strategy consistent with that view. The supervisory board has been actively engaged at an early stage in formulating the Company's strategy and supervises the manner in which the strategy is implemented. We refer to Chapter 3, which describes the Company’s mission statement, which articulates further the view on sustainable long term value creation, as approved by the supervisory board. We refer to chapter 3.1 for additional information of LTVC encapsulated in the mission statement.

As of December 31, 2023, the management board was composed as follows:

Name and age	Gender	Nationality	Date of initial appointment	Expiration of current term of office	Attendance rate at meeting of the board
Kim Stratton – (CEO), 60	F	Australian	Feb 1, 2022	2024	100% attendance
Miguel Coego Rios – (CFO), 50	M	Spanish	May 27, 2022	2024	100% attendance
Prof. Peter Bauer, M.D., - (Chief Medical and Genomic Officer) 54	M	German	January 24, 2023	2027	100% attendance

There are 12 meetings per year.

Kim Stratton was appointed as our managing director and Chief Executive Officer on February 1, 2022, after having served as interim managing director and Chief Executive Officer as of December 20, 2021. Mrs. Stratton has more than 25 years of global commercial expertise in the biopharmaceutical space, with significant experience across multiple geographies, including the United Kingdom, the United States, Europe, and emerging markets. Most recently, Mrs. Stratton was CEO of Orphazyme, a biopharmaceutical company dedicated to developing treatments for patients living with rare diseases. Prior to this role, she worked at Shire Pharmaceuticals, where she served as Head of International Commercial for Shire's Specialty and Rare Diseases portfolio. Before Shire, Mrs. Stratton spent nearly 15 years at Novartis in a number of senior management roles, including global product development, commercial, marketing, general manager, and various global corporate functions, including government and external affairs. Mrs.Stratton is on the Board of Recordati S.p.A, Novozymes A/S and Vifor Pharma AG. As of December 31, 2024, the Agreement between the Company and Mrs. Stratton ended.

Miguel Coego Ríos was appointed as our Chief Financial Officer, Legal & IT on June 22, 2022, after having served as interim Chief Financial Officer, Legal & IT since April 1, 2022. Mr. Coego Ríos is an experienced senior executive with broad expertise in finance and commercial leadership roles in the pharmaceutical and biotech sectors. He has an extensive track record in achieving sales and expenses targets, team management and development, and steering multi-country projects. Most recently, he was Vice President & General Manager South Europe at Orphazyme A/S, a late-stage clinical biotech company. Before that he was Vice President & CFO EMEA at Mundipharma, a multinational pharmaceutical company. Earlier in his career, he served in several senior management positions at Shire Pharmaceuticals between 2011 and 2019, most recently as CFO LATAM and General Manager of the Andean region.

The service agreement between the Company and Jose Miguel Coego Rios, the Company's Chief Financial Officer, expired by its terms on September 30, 2024. On October 7, 2024, the Company and Mr. Rios entered into a Consultancy Agreement, which was deemed effective as of October 1, 2024, pursuant to which Mr. Rios will provide business consulting services to the Company in accordance with the terms of the Consultancy Agreement until no later than December 31, 2024. As of December 31, 2024, the Agreement between the Company and Mr. Rios ended.

Prof. Peter Bauer, M.D. Prof. Bauer was appointed as temporary managing director to the management board as our Chief Medical and Genomic Officer on January 24, 2023, until his proposed formal appointment at the Company's next general meeting of shareholders, after having served as our Chief Medical Officer since 2022 and Chief Genomic Officer since December 2019, prior to which he served as our Chief Scientific officer from January 2017 to November 2019 and Chief Operating officer since joining Centogene in 2016. Prof. Bauer is a professor of human genetics at the University of Tübingen and a board-certified human genetics with expertise in molecular genetics, diagnostic testing, genetic counselling, functional validation of genetic variants and bioinformatics tools for medical interpretation of clinical sequencing. Prior to joining us, he headed of the diagnostic and research laboratory at the Institute of Medical Genetics and Applied Genomics, University Hospital Tübingen from 2001 to 2015. Prof. Bauer has been vice president of the German Society of Neurogenetics since 2004. Prof. Bauer received a degree in medicine from the Freie University Berlin and the approbation as physician (German official license to practice medicine) from the Board of Physicians in Berlin in 1998.

On August 11, 2024, the Company and Centogene GmbH, a wholly owned subsidiary of the Company ("Centogene GmbH"), entered into a manager-leasing contract (the "CRO Agreement") with Atreus Interim Management GmbH, which became effective on August 13, 2024. Pursuant to the CRO Agreement, the Company appointed Thomas Wiedermann to serve as Chief Restructuring Officer of Centogene GmbH (the "CRO") and as a managing director of Centogene GmbH.

7.5. Supervisory board

The supervisory board is charged with the supervision of the policy of the management board and the general course of affairs of the Company and of the business connected with it. The supervisory board provides the management board with advice. In performing their duties, our supervisory directors shall be guided by the interests of the Company and of the business connected with it. The management board provides the supervisory board with the information necessary for the performance of its tasks in a timely fashion. At least once a year, the management board also informs the supervisory board in writing of the main features of the strategic policy, the general and financial risks and the administration and control system of the Company.

In 2023, the Supervisory Board ("SVB") discussed and evaluated in depth the financial situation of the Company in terms on addressing the going concern assumption. During the year, there has been several meetings to discuss different strategies and measures to improve the cash situation. Specifically, the SVB was deeply involved in the decisions related to entering in the Joint Venture Agreement, which has been the main transaction for 2023. Reference is made to Note 1 and 15 in the Consolidated Financial Statements for a more detailed explanation. Other topics addressed by the Supervisory Board were the operational developments, the forecast and analysis and evaluation of the future transaction/measures to continue improving the cash situation and cash burn improvements reflected in the forecast.

As of December 31, 2023, the supervisory board was composed as follows:

Name and age	Gender	Nationality	Date of initial appointment	Expiration of current term of office	Attendance rate at meeting of the board
Peer M. Schatz[(1)], 58	M	Swiss	Jun 26, 2020	2027	100% attendance
Hubert Birner, Ph.D., 57	M	German	Nov 7, 2019	2025	95% attendance
Jonathan G. Sheldon, Ph.D., 52	M	UK	Nov 10, 2020	2025	75% attendance
Guido Prehn, 46	M	German	Nov 7, 2019	2025	85% attendance
Eric Souêtre, 68	M	French	Nov 7, 2019	2025	85% attendance
Mary Sheahan, 51	F	Irish	Dec 1, 2022	2027	85% attendance

(1) Mr. Schatz has been reappointed until 2027.

Peer M. Schatz From January 1, 2021, Peer Schatz has served as Chairman of our supervisory board. Mr. Schatz joined the supervisory board of Centogene in March 2020 as interim member and interim Vice-Chairman of the supervisory board. His appointment was approved in the annual general meeting of shareholders in June 2020. He joined Centogene from his position as long-time Chief Executive Officer of QIAGEN N.V. (Nasdaq: QGEN; Frankfurt: QIA), a leading provider of molecular sample and assay technologies. From 1993 to 2019, he led QIAGEN's rapid expansion from a start-up company with $2 million in sales into a global leader in molecular testing with over $1.6 billion in revenues. Mr. Schatz also serves as member of the supervisory board of Siemens Healthineers AG and as Chairman of the board of Resolve Biosciences GmbH and as Managing Director of PS Capital Management GmbH. He also served as a founding member of the German Corporate Governance Commission and as a supervisory board member of Evotec AG (Frankfurt: EVT). Mr. Schatz graduated from the University of St. Gallen, Switzerland with a master's degree in Finance and from the University of Chicago Graduate School of Business with an MBA. He has been reappointed in the annual general meeting of shareholders in June 2023.

Jonathan G. Sheldon, PhD. Dr. Sheldon joined our supervisory board as an interim member on November 10, 2020, and his appointment was approved by the shareholders in the extraordinary general meeting of shareholders on December 18, 2020. Mr. Sheldon has an extensive track record in the life science and healthcare industry – having spearheaded growth and strategy development of multiple global companies. He serves as Senior Vice President of the Digital Insights Business Area and member of the Executive Committee at QIAGEN N.V., a leading provider of molecular sample and assay technologies. Prior to joining QIAGEN, Jonathan served as the Global Vice President of Oracle Health Services – further positioning the Company's product portfolio, defining its healthcare strategy, and its convergence with Life Sciences. Previously, he was the Head of Bioinformatics at Roche Pharmaceutical, where he established the Company's first bioinformatics department in the UK as well as providing leadership to a variety of software and data companies serving both the life science and healthcare sectors. From 2019 to 2021, Mr. Sheldon was a Board Member of the Drug Information Association (DIA) and served on the board of the American College of Medical Genetics Foundation. He completed his B.Sc. in Biochemistry and Molecular Biology at the University of Manchester, and went on to receive his Ph.D. in Biochemistry and Molecular Biology from the University of Cambridge.

Guido Prehn. Mr. Prehn joined our supervisory board as a member in 2019. Mr. Prehn has over 15 years of experience in the private equity industry. He currently serves on the boards of OmniaMed Holding GmbH, Calvias GmbH, Everest TopCo B.V., Auerbach Holding AG, VTU Group GmbH, FinCo GmbH, B plus L Group Holding GmbH, M-Personal Protection Holding GmbH and M-Personal Protection Management GmbH. Mr. Prehn is a managing director of DPE Deutsche Private Equity which he joined in 2010, shortly after its foundation. Between 2002 and 2009, he worked in various positions at Allianz Capital Partners, TPG Capital and Merrill Lynch. Mr. Prehn studied business administration at the European Business School, Oestrich-Winkel, De Paul University Chicago and Universidad Argentina de la Empresa, Buenos Aires.

Eric Souêtre, M.D. Dr. Souêtre joined our supervisory board as a member in 2017. After various research positions at National Institute of Mental Health, Dr. Souêtre founded "BENEFIT" in 1990, a research and consulting company in health economics (subsequently acquired by QUINTILES Inc. (USA) in 1995). He then served as a board member at QUINTILES Inc., where he was responsible for the global consulting function. In 2003, Dr. Souêtre co-founded LABCO - a network of clinical laboratories - and led the company to a European leadership as chairman and CEO until late 2010. He remained as an active board member until LABCO was sold to CINVEN in 2015. Dr. Souêtre has since co-founded a private equity fund, Careventures, focused on pan European healthcare service ventures. He currently serves on the board of OPERA SA. Dr. Souêtre holds a Ph.D. in neurosciences by the Marseille University, an M.D. by the Medical University of Nice and an MBA from HEC school of Paris.

Berndt Modig, MBA. Mr. Modig joined our supervisory board as a member in April 2018 and has stepped down from his role after the 2023 Annual General Meeting. He is the Chief Executive Officer and Co-Founder of Pharvaris N.V. and brings more than 25 years of experience in working with biotech companies. He served as Chief Financial Officer of Prosensa Holding N.V., a public pharmaceutical company, from March 2010 until its acquisition by BioMarin Pharmaceutical Inc. in January 2015. From October 2003 to November 2008, Mr. Modig was Chief Financial Officer at Jerini AG where he directed private financing rounds, its IPO in 2005, and its acquisition by Shire Plc in 2008. Before that, Mr. Modig served as Chief Financial Officer at Surplex AG from 2001 to 2003 and as Finance Director Europe of U.S.-based Hayward Industrial Products Inc. from 1999 to 2001. In previous positions, Mr. Modig was a partner in the Brussels-based private equity firm, Agra Industria, from 1994 to 1999 and a senior manager in the Financial Services Industry Group of Price Waterhouse LLP in New York from 1991 to 1994. In addition, until April 2021 he served as Vice-Chairman of the supervisory board and Chairman of the audit committee of Kiadis Pharma N.V., all of which are publicly held pharmaceutical companies, and he was a Director of Mobile Loyalty plc from 2012 to 2013. Mr. Modig received a bachelor's degree in business administration, economics and German language from the University of Lund, Sweden, and an MBA from INSEAD, Fontainebleau, France. He is a certified public accountant (inactive).

Hubert Birner, Ph.D. Dr. Birner joined our supervisory board as chairman from July 2017 to March 30, 2019, and as vice-chairman from April 1, 2019, to March 16, 2020. Dr. Birner is responsible for TVM Capital Life Science's overall investment strategy and global fund operations in Europe and North America. He currently serves as Chairman of the board of directors of Leon-nanodrugs GmbH and AL-S Pharma AG. Dr. Birner previously served on the board of Acer Therapeutics, Argos Therapeutic, Horizon Pharma, Inc., Bioxell SA, Evotec AG, Jerini AG, Noxxon Pharma, Probiodrug AG, Proteon Therapeutics Inc. and SpePharm Holdings BV. Prior to his current tenure, he was Head of Business Development Europe and Director of Marketing for Germany at Zeneca Agrochemicals. Dr. Birner joined Zeneca from McKinsey & Company's European Health Care and Pharmaceutical practice and as Assistant Professor for biochemistry at the Ludwig-Maximilian-University ("LMU"), following his summa cum laude doctoral degree in biochemistry at LMU; his doctoral thesis was honored with the Hoffmann-La Roche prize for outstanding basic research in metabolic diseases. Dr. Birner also holds an MBA from Harvard Business School.

Mary Sheahan. Mrs. Sheahan was appointed as an interim supervisory director effective as of December 31, 2022, until her proposed formal appointment took place at the Company's general meeting of shareholders held on June 2023. Mrs. Sheahan brings over 20 years of experience in private and publicly listed international pharmaceutical and life science companies, including as an executive at Avillion, Perrigo, and Elan Corporation, as well as a non-executive director at Venn Life Sciences. Throughout her career, she has held significant financial and other management roles and supported value creation across a wide range of areas, including supporting development, approval, and launch of products for neurology and immunology indications. Mrs. Sheahan currently serves as CFO of Avillion LLP, a private equity-backed life sciences company focused on the co-development and financing of pharmaceutical products. In this role, she is also responsible for supporting Avillion's partnerships with multinational pharmaceutical companies. Mrs. Sheahan is also a qualified chartered accountant and has worked as an auditor with KPMG.

All of our supervisory board members (with the exception of the two members listed below) are independent under best practice provision 2.1.8 of the DCGC.

Guido Prehn and Eric Souêtre are each a representative of, or otherwise affiliated with, a shareholder holding at least 10% of the Company's issued share capital. Together, they constitute less than half of the total number of the supervisory board members.

There are no other supervisory board members representing, or otherwise affiliated with, a shareholder holding at least 10% of the Company's issued share capital.

On August 30, 2024, Peer Schatz, Mary Sheahan and Jonathan Sheldon each notified the Supervisory Board (the "Supervisory Board") of Centogene N.V. (the "Company") of their respective resignation from their position as a member of the Supervisory Board, effective as of September 30, 2024. On September 30, 2024, Peer Schatz and Mary Sheahan extended their period until November 4, 2024. On November 5, 2024, both Mary Sheahan and Peer Schatz entered into a consultancy agreement with the Company, pursuant to which they will provide business consulting services to the Company in accordance with the terms of the consultancy agreement on an as-requested basis.

7.6. Committees

7.6.1. General

The supervisory board has established an audit committee, a compensation committee and a nomination and corporate governance committee. Each committee operates pursuant to its charter.

As at December 31, 2023, the committees were composed as follows:

Name and age	Audit committee[1] (and attendance rate)	Compensation Committee[2] (and attendance rate)	Nomination and corporate governance committee (and attendance rate)
Peer M. Schatz	X (100% attendance)		No meetings held
Jonathan G. Sheldon	X (85% attendance)		
Hubert Birner		X (100% attendance)*	No meetings held
Guido Prehn		X (100% attendance)	No meetings held
Eric Souêtre		X (100% attendance)	No meetings held
Mary Sheahan	X (100% attendance)*		

* Chairman/Chairwoman
1 There were 20 audit committee meetings held during the year
2 There was 1 compensation committee meeting held during the year.

7.6.2. Audit committee

The responsibilities of our audit committee include:

- monitoring the management board with respect to (i) the relations with, and the compliance with recommendations and follow-up of comments made by, the Company's internal audit function and the Dutch independent auditor, (ii) the Company's funding, (iii) the application of information and communication technology by the Company, including risks relating to cybersecurity and (iv) the Company's tax policy;
- issuing recommendations concerning the appointment and the dismissal of the head of the Company's internal audit function;
- reviewing and discussing the performance of the Company's internal audit function;
- the Company's compliance with applicable legal and regulatory requirements;

- the operation of the Company's code of conduct and ethics and its other internal policies;

- reviewing and discussing the Company's audit plan, including with the Dutch independent auditor and the internal audit function;reviewing and discussing the essence of the audit results, including (i) flaws in the effectiveness of the internal controls, (ii) findings and observations with a material impact on the Company's risk profile and (iii) failings in the follow-up of recommendations made previously by the internal audit function;receiving from the Dutch independent auditor a formal written statement at least annually delineating all relationships between the Dutch independent auditor and the Company consistent with applicable requirements of the Public Company Accounting Oversight Board (PCAOB) regarding the communications of the Dutch independent auditor with the Audit Committee concerning independence;

- reviewing and discussing with the Dutch independent auditor, at least annually (i) the scope and materiality of the Company's audit plan and the principal risks of the Company's annual financial reporting identified in such audit plan, (ii) the findings and outcome of the Dutch independent auditor's audit of the Company's financial statements and the management letter and (iii) significant findings from the audit and any problems or difficulties encountered, including restrictions on the scope of the Dutch independent auditor's activities or on access to requested information, as well as significant disagreements with the Company's management;

- determining whether and, if so, how the Dutch independent auditor should be involved in the content and publication of financial reports other than the Company's financial statements;

- resolving disagreements between management and the Dutch independent auditor regarding the Company's financial reporting;

- reviewing and discussing with the Dutch independent auditor any audit problems or difficulties and the response of the Company's management thereto, including those matters required to be discussed with the Audit Committee by the Dutch independent auditor pursuant to established auditing standards, such as (i) restrictions on the scope of the activities of the Dutch independent auditor or on access to requested information, (ii) accounting adjustments that were noted or proposed by the Dutch independent auditor but were "passed" (as immaterial or otherwise), (iii) communications between the audit team and the audit firm's national office regarding auditing or accounting issues presented by the engagement and (iv) management or internal control letters issued, or proposed to be issued, by the Dutch independent auditor;

- reviewing and discussing the effectiveness of the design and operation of the internal controls with the management board, the chief executive officer and the chief financial officer, as appropriate, including identified material failings, deficiencies or material weaknesses in the internal controls and material changes made to, and material improvements planned for, the internal controls;

- assisting the Company in preparing the disclosure to be included in the Company's applicable filings as required by the Securities Act, the Exchange Act and their related rules;

- advising the management board regarding the Dutch independent auditor's nomination for (re)appointment or dismissal (including confirmation and evaluation on the rotation of the audit partners on the audit engagement team as required by applicable laws) and preparing the selection of the Dutch independent auditor for such purpose, as relevant;

- reviewing and discussing the terms of engagement of the Dutch independent auditor to audit the Company's financial statements, to prepare or issue an audit report, or to perform other audit, review or attest services, including the scope of the audit, the materiality standard to be applied, and causing the Company, without further action, to pay the compensation of the Dutch independent auditor as approved by the audit committee;

- engagement of such independent legal, accounting and other advisors as the audit committee deems necessary or appropriate to carry out its responsibilities, including causing the Company, without further action, to pay the reasonable compensation of such advisors as approved by the audit committee;

- causing the Company to pay, without further action, the ordinary administrative expenses of the audit committee that are necessary or appropriate in carrying out its duties;

- preparing the audit committee report that the SEC rules require to be included in the Company's annual proxy statement (if and when the Company would become subject to those rules);

- establishing policies for the Company's hiring of current or former employees of the Dutch independent auditor;

- establishing procedures for (i) the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters and (ii) the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters;

- reviewing potential conflicts of interest involving managing or supervisory board members, including whether they may take part in the deliberations in the decision-making process on any issue as to which there may be a conflict; and

- developing and recommending to the supervisory board the Company's related person transaction policy

During the fiscal year to which this Annual Report relates, our audit committee met twenty times in order to carry out its responsibilities. The main items discussed at those meetings related to review and approval of quarterly financial statements, engagement of external auditors and the adequacy of internal risk management and control system. Additionally the following items were specifically discussed

- Analysis and revision of consolidated and stand-alone financial statements (timing, implications of delay etc.).

- Auditor relationship (planification, preliminary and final conclusions etc.).

- Analysis and supervision of Controls framework.

- Going concern analysis and cash situation.

7.6.3. Compensation committee

The responsibilities of our compensation committee include:

- reviewing and evaluating the Company's compensation policy and benefits policies generally, including the review and recommendation of incentive-compensation and equity-based plans of the Company that are subject to approval of the supervisory board, as well as the compensation of the chief executive officer and the Company's other executive officers;

- submitting proposals to the supervisory board concerning changes to the Company's compensation policy, as relevant;

- submitting proposals to the supervisory board concerning the compensation of individual managing directors and the Company's other executive officers, covering at least (i) the compensation structure, (ii) the amount of the fixed and variable compensation components, (iii) the applicable performance criteria, (iv) the scenario analyses that have been carried out, (v) the pay ratios within the Company's peer group, (vi) the views of any managing director with regard to the amount and structure of his own compensation and (vii) if considered appropriate by the management board or the compensation committee, the views of any executive officer with regard to the amount and structure of his own compensation;

- submitting proposals to the supervisory board concerning the compensation of individual supervisory board members;

- reviewing and assessing of risks arising from the Company's compensation policies and practices and whether any such risks are reasonably likely to have a material adverse effect on the Company;

- preparing of the Company's compensation report for the supervisory board;

- preparing of the compensation committee report required by SEC rules or the rules of any other regulatory body; and

- the retention of or obtaining advice from a compensation consultant, legal counsel or other advisor as the compensation committee deems necessary or appropriate to carry out its responsibilities, including the appointment of such consultant, counsel or advisor and the ability to cause the Company, without further approval, to pay with Company funds the reasonable compensation of such consultant, counsel or advisor as approved by the compensation committee, provided, however, that (i) in retaining or obtaining the advice of such consultant, counsel or advisor, other than in-house legal counsel, the compensation committee shall take into consideration the factors affecting independence required by applicable SEC rules and Nasdaq rules and (ii) the compensation committee will be responsible for the oversight of the work of any such consultant, counsel or advisor.

During the fiscal year to which this Annual Report relates, our compensation committee met once in order to carry out its responsibilities. The main items discussed at the meeting related to review of compensation, incentives and other benefits.

7.6.4. Nomination and corporate governance committee

The responsibilities of our nomination and corporate governance committee include:

- drawing up selection criteria and appointment procedures for the managing directors and supervisory board members;

- reviewing the size and composition of the management board and the supervisory board and submitting proposals for the composition profile of the supervisory board;

- making recommendations to the supervisory board as to determinations of supervisory board members independence;

- reviewing the functioning of individual managing directors and supervisory board members and reporting on such review to the supervisory board;

- drawing up a plan for the succession of managing directors and supervisory board members;

- submitting proposals for (re)appointment of managing directors and supervisory board members;

- supervising the policy of the management board regarding the selection criteria and appointment procedures for the Company's executive officers;

- overseeing the self-evaluation of the management board and the supervisory board to determine whether it and its committees are functioning effectively; and

- developing and recommending to the management board the code of conduct and ethics and overseeing compliance with the code of conduct and ethics, including - at least annually - reviewing and reassessing the adequacy of the code of conduct and ethics and recommending any proposed changes to the management board.

During the fiscal year to which this Annual Report relates, no meetings of our nomination and corporate governance committee were held, however matters pertaining to this portfolio would be discussed during the Supervisory Board meetings, if needed. During 2023, there was not such need, therefore, no discussion over nomination was held.

7.7. Evaluation

During the fiscal year to which this Annual Report relates, no evaluation of the its own functioning, the functioning of the committees of the supervisory board and that of the individual managing directors and supervisory directors took place. However, a remediation process is underway and will be implemented effective in the following financial year.

7.8. Diversity & Inclusion

The Company has a diversity and inclusion policy with respect to the composition of the management board, supervisory board, executive committee and the Company's senior management (as defined by that policy). The Company supports, values, fosters, cultivates and preserves a culture of diversity and inclusion. In this respect, diversity refers to the different characteristics that make individuals unique, such as age, gender, race, ethnicity, sexual orientation, physical abilities, religious beliefs, socio-economic background, experiences, qualifications, knowledge and abilities The Company's diversity and inclusion initiatives, ambitions and objectives apply, without limitation, to its practices and policies on recruitment, selection and retention, compensation and benefits, professional development and training, social and recreational programs. The Company is committed to the ongoing development of a safe working environment throughout the Company Group that is free from harassment and discrimination against any individual on the basis of their unique characteristics. Under the Company's diversity policy, to the extent possible and practicable, the Company intends for the composition of the management board, the supervisory board, executive committee (if and when established) and the Company's senior management (as defined by that policy) to be such that at least 30% of the members of such body or group are men and at least 30% members of such body or group are women, consistent with applicable Dutch law. In addition to age and gender, the Company recognises and welcomes the value of diversity with respect to race, ethnicity, nationality, sexual orientation and other cultural differences.

The Company has 3 employees in the Management board at the end of the financial year, comprising 1 female and 2 males. The Company has 6 members of the Supervisory Board, comprising 5 males and 1 female.

The Company believes that the composition of its management board and the supervisory board is such, that the Company's diversity objectives, as outlined above, have been achieved, except for the Company's diversity targets in term of gender for the supervisory board. This is primarily due to the selection of the current members of the supervisory board based on the required profile and their backgrounds, experiences, qualifications, knowledge, abilities and viewpoints without positive or negative bias on gender. In the future, this will continue to be the Company's basis for selection of new members of the supervisory board. During 2023, we started to decrease the number of males.

8. COMPENSATION

8.1. Compensation policy

Pursuant to Section 2:135(1) DCC, the General Meeting has adopted a Compensation Policy. The Compensation Policy is designed to (i) attract, retain and motivate managing directors with the leadership qualities, skills and experience needed to support and promote the growth and sustainable success of the Company and its business, (ii) drive strong business performance, promote accountability and incentivize our managing directors to achieve short and long-term performance targets with the objective of increasing the Company's equity value and contributing to the Company's strategy for long-term value creation, (iii) assure that the interests of our managing directors are closely aligned to those of the Company, its business and its stakeholders, and (iv) ensure the overall market competitiveness of the compensation packages which may be granted to our managing directors, while providing the supervisory board sufficient flexibility to tailor the Company's compensation practices on a case-by-case basis, depending on the market conditions from time to time. We believe that this approach and philosophy benefits the realization of the Company's long-term objectives while keeping with the Company's risk profile.

Compensation Element	**Policy Summary**		
Base salary (*)	The Supervisory Board determines the base salary and may, at its discretion, apply an increase.		
Annual cash incentive (*)	CEO	CFO	Other members
	On-target: 80%	On-target: 80%	Fix amount per year.
	Maximum: 120% of target amount	Maximum: 120% of target amount	
	80% is related to financial performance measures and focuses on the realization of strategic business objectives. 20% is related to innovation, team and individual performance measures.		
Long-term equity based incentive (*)	CEO	CFO	Other members

	Award Agreement under the Long Incentive Plan of the Parent Company. Refer to Note 22 in the Consolidated Financial Statements for further detail.		
Additional benefits (*)	CEO	CFO	Other members
	Additional benefits, such as expense and relocation allowances, medical insurance, accident insurance and company car arrangements. Pension benefits: At a discretion of the Supervisory Board, the Company may (i) provide for a pension arrangement for the Officer with a pensionable salary that is based on the Base Salary and (ii) contribute to the pension premiums concerned up to an amount or percentage as determined by the Supervisory Board (with the Officer being obliged to pay the remaining part of such premiums); or the Officer may be eligible to participate in the collective pension scheme that the Company has taken out for the benefits of its employees.		

(*) We are not disclosing the specific terms/amounts for management due to competitors concerns.

Management achieved a 100% of the targets and the bonus paid was according to this percentage of achievement and the policy described above. In addition, On June 26, 2023, the Company entered into a Joint Venture Agreement with Pharmaceutical Investment Company (“PIC”) and signed a Convertible Loan Agreement on October 26, 2023. According to those facts and circumstances the scenario of a Capital Raise as defined in the Amendment Agreement happened, therefore, the Company awarded a Capital Raise Bonus in the amount of EUR 997k (see Note 22 in the Consolidated Financial Statements).

8.2. Compensation of managing directors

See Note I (Compensation) to the Company financial statements for an overview of the implementation of the Compensation Policy in the fiscal year to which this Annual Report relates. In determining the level and structure of the compensation of the managing directors in the fiscal year to which this Annual Report relates relevant scenario analyses carried out in advance have been considered.

8.3. Pay ratio

The DCGC recommends that the Company provide a ratio comparing the compensation of our managing directors and that of a "representative reference group" determined by the Company. The Company´s pay ratio reflects the average total compensation of the total global employee workforce, relative to the total remuneration package of the CEO. This has resulted in the following outcome:

	in EUR k		
Fiscal year	**CEO Total remuneration (1)**	**Average total compensation employees (2)**	**Resulting pay ratio**
2023 (6)	2,843	84	34
2022 (5)	1,857	70	26
2021 (4)	3,778	61	62
2020 (3)	2,033	79	26
2019	1,301	87	15

(1) Remuneration is based on total compensation costs as reported in the table " Managing Directors" under Note I.
(2) Employee average remuneration based on total employee benefit expenses and total employees in FTEs (third party workers excluded) as disclosed in note 8 to the consolidated financial statements, Employee benefit expenses
(3) During 2020, there was a change on the CEO that impact the ratio as the share-based payment compensation takes two grants instead of one in prior period.
(4) During 2021, an additional option award was granted.
(5) During 2022, there was a change on the CEO that impact the ratio as the share-based payment compensation takes two grants instead of one in prior period.
(6) During 2023, as a result of the JV agreement, management received an additional bonus (refer to note 22 to our consolidated financial statements)

9. RELATED PARTY TRANSACTIONS

The following is a description of related party transactions we have entered into since January 1, 2023 with any of our officers, directors and the holders of more than 5% of our voting securities, or any member of the immediate family of any of the foregoing persons.

Transactions Involving Members of Our Supervisory Board, Management Board and Other Related Parties

The Company purchased supplies used for genetic testing from an entity related to a member of the supervisory board. Expenses totaling EUR 812 thousand were charged to profit and loss related to the period of service of the board member.

For the year ended December 31, 2023, no revenues were recognized in profit and loss in relation performance of genetic testing services for entities related to members of the supervisory board.

For the year ended December 31, 2023, Dr Bauer GmbH recharged costs related to Covid to CNTG GmbH with an amount of EUR 236k. Consequently, as of December 31, 2023, the Company recognized the net position amounted to EUR 80k as a liability that has been fully paid in 2024.

On January 31, 2022 (the "Closing Date"), the Company, Centogene GmbH, CentoSafe B.V. and Centogene US, LLC (together, the "Borrowers"), entered into the Loan and Security Agreement with Oxford Finance LLC and the other financial institutions or entities from time to time parties to the Loan and Security Agreement (collectively, referred to as "Lenders") and Oxford, in its capacity as collateral agent for itself and the Lenders (in such capacity, "Agent"). The loans extended under the Loan Facility bear monthly interest payments at an interest rate of 7.93% per annum plus the 1-month CME Term SOFR reference rate as published by the CME Group Benchmark Administration Limited.

On July 28, 2022, we amended the Loan and Security Agreement to expand the scope of Permitted Indebtedness and Permitted Liens (each, as defined therein). On April 30, 2023, we amended the Loan and Security Agreement for a second time (the "Second Amendment") to permit (i) the delivery of our audited consolidated financial statements for the fiscal year ended December 31, 2022 thirty days later than is otherwise required and (ii) the listing of our common shares on NASDAQ Global Market. The Second Amendment introduced new requirements that (i) we prepay any outstanding loans under the Loan and Security Agreement in an amount of $5.0 million (plus fees, interest and expenses, in each case, pursuant to the terms of the Loan and Security Agreement) upon the first new business development or financing transaction we enter and (ii) we maintain at least EUR 9.1 million in unrestricted cash on deposit in collateral accounts subject to Oxford's perfected security interest granted under the Loan and Security Agreement.

On October 26, 2023 a new amendment was signed. This third amendment modified the existing requirements whereby (i) a reduction in interest rate was introduced, bearing now an interest of 6.15% instead of 7.93% originally, and (ii) maturity date was extended (iii) removal of the USD 5.0 million prepayment and (iv) removal of the requirement to hold EUR 9.1 million in unrestricted cash on deposit once the Joint Venture (see Joint Venture Agreement, Note 1 in the consolidated financial statements) has been created and signing of the ancillary agreements.

On June 26, 2023, the Company entered into a joint venture agreement (the "Joint Venture Agreement") dated June 26, 2023 with Pharmaceutical Investment Company ("PIC" or "Lifera"), a closed joint stock company incorporated pursuant to the laws of Saudi Arabia and a wholly-owned subsidiary of the Public Investment Fund (PIF) based in Riyadh, to form a joint venture under the laws of Saudi Arabia. According to the joint venture agreement, the founding capital is to be provided 80% (SAR 80,000,000) by PIC and 20% (SAR 20,000,000) by the Company and will be used to finance business operations, including the establishment of a laboratory competence center in Saudi Arabia ("KSA"). This agreement was amended on October 23, 2023, changing the steps needed for the JV to be established.

Following this, a convertible loan agreement was signed on October 26, 2023. Cash of USD 30 million was received from PIC on October 30, 2023. Pursuant to the Joint Venture Agreement, and subject to the terms and conditions contained therein, the Company and PIC agreed to establish a limited liability company in the kingdom of Saudi Arabia (the "JV"). The terms of which also include ancillary agreements pertaining to a Technology Transfer and Intellectual Property License Agreement, a Consultancy Agreement and a Laboratory Services Agreement, that were signed on November 27, 2023. On November 19, 2023, Genomics Innovations Company Limited (the "JV") was fully formed as a limited liability company organized under the laws of the Kingdom of

Saudi Arabia. As a result of the convertible loan agreement, the Company granted a Capital Raise Bonus to the CFO and CEO (see Note 22 in the consolidated financial statements for further detail).

Best practice provisions 2.7.3, 2.7.4 and 2.7.5 of the DCGC have been complied with respect to the transactions referenced above in this chapter.

Insurance and Indemnification Agreements

Our current and future managing directors and supervisory directors (and such other officer or employee as designated by our management board) have the benefit of indemnification provisions in our articles of association. These provisions give the indemnified persons the right to recover from us amounts, including but not limited to litigation expenses, and any damages they are ordered to pay, in relation to acts or omissions in the performance of their duties, subject to certain exceptions. In particular, there is no entitlement to indemnification for acts or omissions which have been determined to constitute malice, gross negligence, intentional recklessness and/or serious culpability attributable to such indemnified person. In addition, we have entered into agreements with our managing directors and supervisory board members to indemnify them against expenses and liabilities to the fullest extent permitted by law. These agreements also provide, subject to certain exceptions, for indemnification for related expenses including, among others, attorneys' fees, judgments, penalties, fines and settlement amounts incurred by any of these individuals in any action or proceeding. In addition to such indemnification, we provide our managing directors and supervisory directors with directors' and officers' liability insurance.

10. PROTECTIVE MEASURES

Certain provisions of our articles of association may make it more difficult for a third party to acquire control of us or effect a change in our management board and supervisory board. These include:

- a provision that our managing directors and supervisory directors are appointed on the basis of a binding nomination prepared by our supervisory board which can only be overruled by a two-thirds majority of votes cast representing more than 50% of our issued share capital;
- a provision that our managing directors and supervisory directors may only be dismissed by the General Meeting by a two-thirds majority of votes cast representing more than 50% of our issued share capital (unless the dismissal is proposed by the supervisory board in which case a simple majority of the votes would be sufficient); and
- a provision allowing, among other matters, the former chairperson of our supervisory board to manage the supervision of our affairs if all of our supervisory directors are dismissed and to appoint others to be charged with the supervision of our affairs, including the preparation of a binding nomination for our managing directors and supervisory directors as discussed above, until new supervisory directors are appointed by the general meeting on the basis of such binding nomination); and
- a requirement that certain matters, including an amendment of our articles of association, may only be brought to our shareholders for a vote upon a proposal by our management board with the approval of our supervisory board.

Also, only part of our managing directors and supervisory directors may be subject to election or re-election in any one year.

11. OTHER INFORMATION

11.1. Profit appropriation provisions

Pursuant to the Company's articles of association, any profits shown in the adopted statutory annual accounts of the Company shall be appropriated as follows, and in the following order of priority:

- the management board shall determine which part of the profits shall be added to the Company's reserves; and
- subject to a proposal by the management board to that effect, the remaining profits shall be at the disposal of the General

Meeting for distribution on the shares.

11.2. Branches

The Company has a branch named Centogene N.V. Germany, with an office in Rostock, Germany.

11.3 Outlook and Future expectations

- As an early commercial-stage company, the Group is still in progress towards reaching break-even in its diagnostic and pharmaceutical businesses. The Group and Company are subject to a number of risks similar to those of other development and early commercial stage companies. These risks include, among other things, the failure to enter into and successfully execute further collaborations with pharmaceutical partners and the failure to generate sufficient revenue from the Company's development portfolio.
- In addition, cost savings measures implemented, have resulted in noteworthy reductions in Research and Development costs, improving the overall cash burn rate. Following on the waves of efficiencies first introduced in 2023 and continued in 2024, the Company was reviewing and refining the cost structure, aiming to improve the overall cash burn rate and reducing mainly the consumable costs due to the incorporation of a new sequencer on the laboratory that reduces the material required to run the diagnostic tests, as well as reducing the General and Administrative expenses as well as the Research and Development costs.
- Despite these efforts to increase revenues and carefully manage expenses, the Group requires additional funding through financing activities which are necessary for the Company to continue its operational existence for at least twelve months. On November 12, 2024, the Transaction between the Company and Charme Capital Partners was signed. As a consequence of this transaction, the Company is planned to be liquidated in 2025. Please refer to Note 29 to the Consolidated Financial Statements for further detail.

CENTOGENE N.V.

CONSOLIDATED FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED DECEMBER 31, 2023

These financial statements are consolidated financial statements for the Group consisting of Centogene N.V. and its subsidiaries. The financial statements are presented in thousands of Euro (€).

Centogene N.V. is a company limited by shares, incorporated and domiciled in Amsterdam, The Netherlands. Its registered office and principal place of business is in Germany, Rostock, Am Strande 7.

All press releases, financial reports and other information are available in the investor's register on our website: www.centogene.com

Centogene N.V.

Consolidated statements of comprehensive loss for the years ended December 31, 2023, 2022 and 2021

(in EUR k)

	Note	2023	2022	2021
Revenue	7.2	48,536	47,473	42,234
Cost of sales		31,287	27,712	28,735
Gross profit		**17,249**	**19,761**	**13,499**
Research and development expenses		12,361	17,488	19,297
General administrative expenses		32,588	32,587	43,480
Selling expenses		12,564	9,924	9,326
Impairment of financial assets		812	—	827
Gain on reversal of financial asset impairment		—	432	—
Other operating income	8.1	11,848	3,774	2,894
Other operating expenses	8.2	431	741	86
Operating loss		**(29,659)**	**(36,773)**	**(56,623)**
Losses from investments accounted for by the Equity method	15	(302)	—	—
Gains/(losses) on changes in fair value of warrants	8.3	(159)	2,574	—
Interest and similar income		3,293	512	3
Interest and similar expenses		8,418	4,909	802
Financial costs, net	8.3	(5,284)	(1,823)	(799)
Loss before taxes from continuing operations		**(35,245)**	**(38,596)**	**(57,422)**
Income taxes expenses	10	287	107	(70)
Loss for the year from continuing operations		**(35,532)**	**(38,703)**	**(57,352)**
Net income from discontinued operations, net of tax	9	—	6,862	11,106
Loss for the period		**(35,532)**	**(31,841)**	**(46,246)**
Other comprehensive income/(loss), all attributable to equity holders of the parent		(271)	(76)	543
Total comprehensive loss		**(35,803)**	**(31,917)**	**(45,703)**
Attributable to:			—	—
Equity holders of the parent		(35,803)	(31,917)	(45,801)
Non- controlling interests from continuing operations	25	—	—	98
Non- controlling interests from discontinued operations		—	—	—
		(35,803)	(31,917)	(45,703)
Net loss per share - Basic and diluted from (in EUR)				
Continuing operations	11	(1.27)	(1.45)	(2.53)
Loss attributable to parent	11	(1.27)	(1.19)	(2.04)

The accompanying notes form an integral part of these consolidated financial statements

Centogene N.V.

Consolidated statements of financial position as of December 31, 2023 and 2022

(in EUR k)

Assets	Note	Dec 31, 2023	Dec 31, 2022
Non- current assets			
Intangible assets	12	6,850	7,400
Property, plant and equipment	13	5,643	6,808
Right-of-use assets	14	13,635	15,351
Investment in Joint Venture	15	2,784	—
Derivative assets	23.1	799	510
Other assets	17	3,425	2,911
		33,136	**32,980**
Current assets			
Inventories	16	2,463	1,819
Trade receivables and contract assets	17	19,415	16,548
Other assets	17	3,042	5,514
Cash and cash equivalents	18	19,099	35,951
		44,019	**59,832**
		77,155	**92,812**

Equity and liabilities	Note	Dec 31, 2023	Dec 31, 2022
Equity			
Issued capital	19	3,478	3,307
Capital reserve	19	148,308	145,369
Accumulated deficit and other reserves		(177,068)	(141,265)
Non- controlling interests		—	—
		(25,282)	**7,411**
Non- current liabilities			
Non- current loans	21.1	39,880	40,051
Lease liabilities	21.1	12,399	13,125
Deferred tax liabilities	10	407	35
Government grants	21.2	5,701	6,687
Derivative liabilities	21.2, 23	242	376
Warrant liability	21.2, 23	394	260
Other liabilities	21.2, 22	48	202
		59,071	**60,736**
Current liabilities			
Government grants	21.2	984	1,263
Current loans	21.1	25,882	4,635
Lease liabilities	21.1	2,178	2,311
Liabilities from income taxes		87	89
Trade payables	21.2	5,628	6,317
Other liabilities	21.2, 22	8,607	10,050
		43,366	**24,665**
		77,155	**92,812**

The accompanying notes form an integral part of these consolidated financial statements

Centogene N.V.

Consolidated statements of cash flows for the years ended December 31, 2023, 2022 and 2021

(in EUR k)

	Note	2023	2022	2021
Operating activities				
Loss before taxes from continuing operations		(35,245)	(38,596)	(57,422)
Income before taxes from discontinued operations	9	—	6,875	11,152
Loss before taxes		(35,245)	(31,721)	(46,270)
Adjustments to reconcile earnings to cash flow from operating activities				
Amortization (including impairments) and depreciation	12,13,14	7,610	10,378	19,974
Government grant depreciation		(1,265)	—	—
Inventory write-off	16	226	—	1,795
Interest income	8.3	(209)	—	(3)
Interest expense	8.3	8,201	4,909	851
Gain on the disposal of property, plant and equipment		(56)	(754)	(18)
Gain on the sales of IP to Joint Venture	8.1	(7,549)	—	—
Expected credit loss allowances on trade receivables and contract assets	23.2	761	—	827
Share- based payment expenses	22	2,929	(16)	8,035
Tax Expense		—	(89)	—
Profit or loss from financial instruments FV adjustments	8.3	(263)	(2,574)	—
Loss from Joint Venture equity method	15	302	—	—
Other non- cash items		(34)	(1,430)	(821)
Net foreign exchange differences		(2,438)	963	—
Interest received		209	—	—
Changes in operating assets and liabilities:				
Inventories	16	(870)	2,050	5,741
Trade receivables and contract assets	17	(3,628)	6,914	4,855
Other assets	17	1,858	-	1,828
Trade payables	21.2	(689)	(4,935)	(20,484)
Other liabilities		(1,599)	(10,182)	1,952
Thereof cash flow (used in) continuing operating activities		(31,749)	(35,497)	(42,635)
Thereof cash flow from discontinued operating activities		—	9,009	20,897
Cash flow (used in)/from operating activities		**(31,749)**	**(26,488)**	**(21,739)**
Investing activities				
Cash paid for investments in intangible assets	12	(2,239)	(1,727)	(2,787)
Cash paid for investments in property, plant and equipment	13	(40)	(367)	(2,915)
Cash paid for investment in Joint Venture	15	(4,973)	—	—
Grants received for investment in property, plant and equipment	21.2	—	506	168
Cash received from the disposals of property, plant and equipment		93	855	171
Cash received from sale of IP to Joint Venture	15	9,436	—	—
Interest received		—	—	3
Thereof cash flow from/(used in) in continuing investing activities		2,277	(1,553)	(2,494)
Thereof cash flow from/(used in) discontinued investing activities		—	820	(2,866)
Cash flow used in investing activities		**2,277**	**(733)**	**(5,360)**
Financing activities				
Cash received from the issuance of shares	19	—	12,140	—
Cash received from issuance of warrants		—	2,833	—
Cash paid for acquisition of non-wholly owned subsidiary		—	(1)	—
Cash received from loans	21, 23.2	25,500	40,568	1,772
Cash repayments of loans	21, 23.2	(3,374)	—	(464)
Cash repayments of lease liabilities	21, 23.2	(3,095)	(4,314)	(4,244)
Interest paid	8.3	(5,987)	(4,909)	(267)
Thereof net cash flow from/(used in) continuing financing activities		13,044	46,798	(2,403)
Thereof net cash flow used in discontinued financing activities		—	(481)	(800)
Cash flow from financing activities		**13,044**	**46,317**	**(3,203)**
Changes in cash and cash equivalents		(16,428)	19,096	(30,302)
Cash and cash equivalents at the beginning of the period		35,951	17,818	48,156
Effect of movements in exchange rates on cash held		(424)	(963)	(36)
Cash and cash equivalents at the end of the period		19,099	35,951	17,818

The accompanying notes form an integral part of these consolidated financial statements

Centogene N.V.

Consolidated statements of changes in equity for the years ended December 31, 2023, 2022 and 2021

		Attributable to the owners of the parent						
in EUR k	Note	Issued capital	Capital reserve	Currency translation reserve	Accumulated deficit	Total	Non-controlling interests	Total equity
As of January 1, 2021	1	**2,654**	**125,916**	**(48)**	**(63,691)**	**64,831**	**95**	**64,926**
Loss for the year		—	—	—	(46,344)	(46,344)	98	(46,246)
Other comprehensive loss		—	—	543	—	543	—	543
Total comprehensive loss		—	—	**543**	**(46,344)**	**(45,801)**	**98**	**(45,703)**
Share-based payments	22	—	8,035	—	—	8,035	—	8,035
Exercise of options		54	(54)	—	—	—	—	—
Disposal of non-wholly owned subsidiary		—	—	—	—	—	—	—
Acquisition of non-wholly owned subsidiary		—	—	—	—	—	—	—
As of December 31, 2021		**2,708**	**133,897**	**495**	**(110,036)**	**27,064**	**193**	**27,258**

		Attributable to the owners of the parent						
in EUR k	Note	Issued capital	Capital reserve	Currency translation reserve	Accumulated deficit	Total	Non controlling interests	Total equity
As of January 1, 2022	1	**2,708**	**133,897**	**495**	**(110,036)**	**27,064**	**193**	**27,258**
Loss for the year		—	—	—	(31,841)	(31,841)	—	(31,841)
Other comprehensive loss		—	—	(76)	-	(76)	—	(76)
Total comprehensive loss		—	—	**(76)**	**(31,841)**	**(31,917)**	—	**(31,917)**
Issuance of shares	19	594	14,378	—	—	14,972	—	14,972
Share-based payments	22	—	(16)	—	—	(16)	—	(16)
Exercise of options	19	5	(5)	—	—	—	—	—
Warrant liability	19	—	(2,832)	—	—	(2,832)	—	(2,832)
Acquisition of non-wholly owned subsidiary	24	—	(53)	—	193	140	(193)	(53)
As of December 31, 2022		**3,307**	**145,369**	**419**	**(141,684)**	**7,411**	—	**7,411**

		Attributable to the owners of the parent						
in EUR k	Note	Issued capital	Capital reserve	Currency translation reserve	Accumulated deficit	Total	Non controlling interests	Total equity
As of January 1, 2023	1	**3,307**	**145,369**	**419**	**(141,684)**	**7,411**	—	**7,411**
Loss for the year		—	—	—	(35,532)	(35,532)	—	(35,532)
Other comprehensive loss		—	—	(271)	—	(271)	—	(271)
Total comprehensive loss		—	—	**(271)**	**(35,532)**	**(35,803)**	—	**(35,803)**
Share-based payments	22	—	3,131	—	—	3,131	—	3,131
Exercise of options	19	171	(171)	—	—	—	—	—
Other movements		—	(21)	—	—	(21)	—	(21)
As of December 31, 2023		**3,478**	**148,308**	**148**	**(177,216)**	**(25,282)**	—	**(25,282)**

The accompanying notes form an integral part of these consolidated financial statements

1 General company information

Centogene N.V. ("the Company") and its subsidiaries focus on providing data-driven answers to patients, physicians, and pharmaceutical companies for rare and neurodegenerative diseases. By integrating multiomic technologies with the CENTOGENE Biodatabank, we are able to provide dimensional analysis to guide the next generation of precision medicine. Our unique approach enables rapid and reliable diagnosis for patients, supports a more precise physician understanding of disease states, and accelerates and de-risks targeted pharmaceutical drug discovery, development, and commercialization.

Centogene N.V. is a public company with limited liability incorporated in the Netherlands, with registered office located at Am Strande 7 in 18055 Rostock, Germany and Dutch trade register number 72822872.

On January 31, 2022, pursuant to a securities purchase agreement and a warrant agreement signed with certain investors, we received EUR 15.0 million as consideration for the issuance by us of an aggregate of 4,479,088 common shares at a price per share of USD 3.73.

On June 26, 2023, the Company entered into a joint venture agreement (the "Joint Venture Agreement") dated June 26, 2023 with Pharmaceutical Investment Company ("PIC" or "Lifera"), a closed joint stock company incorporated pursuant to the laws of Saudi Arabia and a wholly-owned subsidiary of the Public Investment Fund (PIF) based in Riyadh, to form a joint venture under the laws of Saudi Arabia. According to the joint venture agreement, the founding capital is to be provided 80% (SAR 80,000,000; EUR 19,892k) by PIC and 20% (SAR 20,000,000; EUR 4,973k) by the Company and will be used to finance business operations, including the establishment of a laboratory competence center in Saudi Arabia ("KSA"). This agreement was modified on October 23, 2023. Following this, a convertible loan agreement was signed on October 26, 2023. Cash of USD 30 million was received from PIC on October 30, 2023. Pursuant to the Joint Venture Agreement, and subject to the terms and conditions contained therein, the Company and PIC have agreed to establish a limited liability company in the kingdom of Saudi Arabia (the "JV"). The terms of which also include ancillary agreements pertaining to a Technology Transfer and Intellectual Property License Agreement, a Consultancy Agreement and a Laboratory Services Agreement, that were signed on November 27, 2023, between the Company and the JV. On November 19, 2023, Genomics Innovations Company Limited (the "JV") was fully formed as a limited liability company organized under the laws of the Kingdom of Saudi Arabia.

2 Basis of preparation

Unless otherwise specified, "the Company" refers to Centogene N.V. and Centogene GmbH throughout the remainder of these notes, while "the Group" refers to Centogene N.V., Centogene GmbH and its subsidiaries.

The consolidated financial statements of the Group were prepared in accordance with International Financial Reporting Standards ("IFRS") as adopted by the European Union. It is in accordance with Part 9 of Book 2 of the Dutch Civil Code. The accounting policies used in the fiscal year 2023 generally correspond to the policies applied in the prior year, except for the changes in presentation relating to discontinued operations (refer to Note 2.1– New significant accounting policies and accounting judgments and estimates and Note 9– Discontinued operations).

These consolidated financial statements are presented in EURO, which is the Group's functional currency. Unless otherwise specified, all financial information presented in EURO is rounded to the nearest thousand (EUR k) in line with customary commercial practice.

2.1 New significant accounting policies and accounting judgments and estimates

Investment in Joint Venture

The Group assesses whether it has significant influence not only on the basis of its ownership percentage but also on the existence of qualitative factors such as representation on the board of directors of the investee, its participation in decision-making processes, interchange of managerial personnel and access to technical information. The Group assesses rights and obligations agreed to by the parties to a joint arrangement and, when relevant, other facts and circumstances in order to determine whether the joint arrangement in which it is involved is a joint venture or a joint operation. Management assessed the JV agreement mentioned in Note

1 has determined as a joint venture based on the analysis of the different factors under the applicable standard (as voting rights, percentage of ownership, board reserves matter and resolutions), and concluded this should be accounted under the equity method (Note 5 (h)).

2.2 Going Concern

As an early commercial-stage company, the Group is still in progress towards reaching break-even in its diagnostic and pharmaceutical businesses. The Group and Company are subject to a number of risks similar to those of other development and early commercial stage companies. These risks include, among other things, the failure to enter into and successfully execute further collaborations with pharmaceutical partners and the failure to generate sufficient revenue from the Company's development portfolio.

The Group's ongoing success and ultimately the attainment of profitable operations depends on future uncertain events which include, among other things, obtaining adequate financing to promote commercial and development activities until the Group can generate sufficient revenues to support its operating cash requirements. The Group has incurred operating losses since inception. For the year ended December 31, 2023, the Group incurred a net comprehensive loss of EUR 35.8 million, resulting in the net cash outflows from operating activities of EUR 31.7 million. As of December 31, 2023, the Group had generated an accumulated deficit of EUR 177.1 million and had an equity position of EUR (25.3) million.

During 2023, management obtained a significant financing through a convertible loan. The Company entered into a joint venture agreement (the "Joint Venture Agreement") dated June 26, 2023, with Pharmaceutical Investment Company ("PIC" or "Lifera"), a closed joint stock company incorporated pursuant to the laws of Saudi Arabia and a wholly-owned subsidiary of the Public Investment Fund (PIF) based in Riyadh, to form a joint venture under the laws of Saudi Arabia. Pursuant to the Joint Venture Agreement, and subject to the terms and conditions contained therein, the Company and PIC have established a limited liability company in Saudi Arabia (the "JV"). In connection with the Joint Venture Agreement, Lifera and the Company have entered into a convertible loan agreement (the "Loan Agreement"), pursuant to which Lifera has loaned the Company USD 30.0 million (the "Principal Amount"). The Loan Agreement was signed on October 26, 2023. On October 30, 2023, the Company received the cash of USD 30.0 million (EUR 28.3 million). The loan originally had a term of six months and was originally scheduled to automatically convert into equity on the maturity date which was April 26, 2024. The conversion of the loan to equity requires the approval of the Committee on Foreign Investment in the United States ("CFIUS"), which is pending. Both companies have finalized the incorporation of the JV on November 19, 2023 and related ancillary agreements signed November 27, 2023 – refer to Note 21.1. The Company invested USD 5.0 million on the JV owning 20% of the shareholding of the company. The Company received cash inflows of SAR 40 million (EUR 9.4 million) on December 27, 2023, linked to the transfer of data from the Biodatabank relating to information from the region of the Kingdom of Saudi Arabia (Note 15).

On May 12, 2024, the Company completed an account receivables sale (the "PIC AR Sale") with PIC. The terms of the PIC AR Sale are set forth in the KSA Receivables Transfer Agreement, which became effective as of May 12, 2024 (the "KSA Receivables Transfer Agreement"), and the accompanying Variation Agreement (the "KSA Receivables Variation Agreement," and together with the KSA Receivables Transfer Agreement, the "Receivables Agreement") between the Company, and PIC dated as of May 12, 2024. Pursuant to the Receivables Agreement, PIC agreed to purchase rights to certain of Centogene's accounts receivable in the region of the Kingdom of Saudi Arabia (each, a "KSA Receivable") for an aggregate purchase price of USD 15.0 million (EUR 13.9 million) (the "AR Purchase Price"). The AR Purchase Price is payable by PIC in three tranches of USD 5.0 million (each, a "Tranche Payment"), having received all tranches.

On May 12, 2024, the Company and PIC entered into a share purchase agreement (the "Share Purchase Agreement") pursuant to which the Company agreed to sell to PIC 16,000 shares in the capital of Genomics Innovation Company Limited, (the "JV"), representing 16% of the JV's total outstanding shares, for an aggregate purchase price of SAR 20.0 million (EUR 4.9 million) (the "Share Purchase Consideration"). The payment has been received on May 23, 2024. The Company has retained a 4% equity position in the JV. Under the terms of the Share Purchase Agreement, during the 24-month period following the six-month anniversary of the closing date of the share purchase, the Company shall have an option to purchase a number of shares in the JV equal to 16% of the aggregate number of shares outstanding at the time of exercise of such option (the "Call Option Shares").

On May 12, 2024, the Company and PIC entered into a Second Amendment (the "Second Loan Amendment") to the Convertible Loan Agreement, dated October 26, 2023, between the Company and PIC to, among other provisions, bifurcate the existing conversion feature of the loan such that (i) an aggregate principal amount of USD 15.0 million plus related conversion fees (the "First Amount"), shall convert on the earlier of April 1, 2025 or the date that is ten (10) days following the receipt by the Company and PIC of approval by the Committee on Foreign Investment in the United States (CFIUS), which is pending, of the issuance of the Company's common shares upon conversion of the loan ("CFIUS Clearance"); and (ii) the remaining aggregate principal amount of USD 15.0 million plus all accrued and unpaid interest and related conversion fees (the "Second Amount") shall convert on the second anniversary of the First Conversion.

In order to close the transactions mentioned above, we obtained Oxford's consent on May 12, 2024, which included the addition of certain covenants in our Oxford Loan and Security Agreement. Specifically, we agreed to certain near-term timing requirements for the entry into a binding definitive agreement for the sale of the Company by July 15, 2024 and by June 15, 2024 with respect to the receipt of nonbinding term sheets relating to a sale. A breach of these timing requirements would constitute an event of default under the Oxford Loan and Security Agreement, unless agreed upon by Oxford, that the transaction process is progressing in a timely manner. If Oxford were to call a default, this which might require us to open insolvency proceedings if Oxford demands the repayment of the loan at short notice and no other financing can be secured. This covenant is consistent with the process management announced in February 2024 to explore strategic alternatives, where we engaged an investment banking firm to advise us in connection with this process.. This covenant was subsequently amended and to the end of November 2024.

On November 12, 2024, the Company (the "Seller") and Charme IV (the "Buyer"), an Italian Fund represented by Charme Capital Partners Limited ("BidCo"), signed a "Share Purchase Agreement", in which the Buyer will acquire, the Shares and the Shareholder Loans held by the Seller, for an amount equal to EUR 8,717,906.80 in cash (the "Cash Consideration") to be paid upon the consummation of the Transaction (the "Closing") and (ii) the assumption by BidCo at Closing of the Company's rights, obligations and liabilities under the existing convertible loan agreement, dated as of October 26, 2023, between the Company and Pharmaceutical Investment Company ("PIC") (as amended to date, the "Convertible Loan Agreement").

Furthermore, on November 12, 2024, Centogene Germany and the JV entered into a short-term loan facility agreement (the "Short-Term Loan Facility Agreement"), pursuant to which the JV will lend Centogene Germany up to €15,000,000 for the purpose of funding Centogene Germany's required cash flow until the earlier of the Closing or March 31, 2025.

The "Share Purchase Agreement" transaction is subject to several conditions such as regulatory, antitrust and shareholder approval as well as conditions that (i) no order, law or injunction is in effect and no filing with suspensory effect has been ordered, which would restrain or prohibit the Transaction in any material respect, (ii) Centogene GmbH is not materially insolvent prior to or at Closing, (iii) Oxford has not taken certain actions prior to or at Closing that would lead to Centogene GmbH being materially insolvent or over-indebted, the Company ceasing to own its shares in Centogene GmbH or Centogene GmbH ceasing to own any of its own assets, (iv) completion of an internal reorganization in order to unwind certain existing intra-group receivables to Charme's satisfaction and (v) the execution and effectiveness of certain agreements (Novation of Centogene-PIC Joint Venture Agreement and Assumption of PIC Convertible Loan Agreement) with Oxford and Lifera to be entered into in connection with the Transaction. In addition, there are certain steps to be taken as pre-closing restructuring measures, in particular implementation of the restructuring plan of the workforce of Centogene GMBH and completing the Antitrust process in Saudi Arabia, among others. This process is currently ongoing the Company is working on it together with the Buyer. On November 2024, the restructuring plan of the workforce started and it is continuing according to expected timelines. Lastly, on January 8, 2025, we received the approval for the Antitrust process.

There is a risk that one or more of these conditions might not be met and the satisfaction of these conditions is largely outside the Company's control. As a result, although the Company expects the Transaction to be consummated, it cannot provide any assurance that the Transaction will be consummated in a timely manner or at all.

Management's cash flow projections include the Company's liquidity needs for the next months until the expected closing of the strategic transaction in March 2025. While management is pursuing avenues to ensure the Company has sufficient liquidity and resources to survive until the closing of the transaction and to avoid risks of insolvency, if the Company is unable to obtain the required funding and achieve the forecasted revenue targets and manage costs, our current cash and cash equivalents will not be sufficient to fund our operations and meet all of our obligations until the closing of the transaction.

These events result in the existence of a material uncertainty that raises significant doubt about our ability to continue as a going concern.

The accompanying consolidated financial statements for the year ended December 31, 2023, have therefore been prepared on a going concern basis.

2.3 Geopolitical Conditions and COVID-19 Pandemic

Worldwide economic and political disruptions as a result the conflicts between Russia and Ukraine as well as in the Middle East, and the effects of COVID-19 have resulted and is expected to further result in interruptions to business operations and supply chain disruption, affecting raw material and or intermediate supply or manufacturing capabilities.

Until today, the impact of geopolitical conditions has not been significant to the Group's operations. However, economic growth is expected to slow, including due to the recent surge in inflation and related actions by central banks, with a significant risk of recession in many parts of the world in the near term. This may also prolong tight credit markets and potentially cause such conditions to become more severe. These issues, along with the re-pricing of credit risk and the difficulties currently experienced by financial institutions, may make it difficult to obtain financing. Additionally, the Group may be affected by price increases or certain fiscal policy changes in Germany, such as new tax legislation, economic sanctions, and comparable measures, although at this point, management does not foresee any such macroeconomic changes.

COVID-19 vaccines being widely available, management updated its long-term outlook for the COVID-19 testing business at the end of the third quarter of 2021 and decided to wind-down all COVID-19 business related operations. Consequently, all COVID-19 testing site contracts expired, all COVID-19 operations at testing sites had ceased and the COVID-19 testing business was discontinued as of March 31, 2022. For Diagnostics and Pharmaceutical businesses, management expects that the impact of the pandemic would be minimal to none for the foreseeable future.

3 Effects of new accounting standards

(a) New standards adopted by the Group as of January 1, 2023

The following amendments and interpretations apply for the first time in 2023 and had no impact on the consolidated financial statements of the Group:

- Amendments to IAS 12 – International Tax Reform – Pillar Two Model Rules
- Amendments to IAS 7 and IFRS 17 – Supplier Finance Agreements
- Amendments to IAS 1 and IAS 8 – Presentation and Accounting Policies
- IFRS 17 – Insurance Contracts

On 23 May 2023, the International Accounting Standards Board (the Board) issued International Tax Reform – Pillar Two Model Rules – Amendments to IAS 12 which clarify that IAS 12 applies to income taxes arising from tax law enacted or substantively enacted to implement the Pillar Two model rules published by the OECD, including tax law that implements Qualified Domestic Minimum Top-up Taxes. The Company has adopted these amendments; however they are not yet applicable for the current reporting year as the company's consolidated revenue is currently below the threshold of EUR 750 million.

(b) New standards not yet effective

Furthermore, certain new and amended standards and interpretations have been published that are not mandatory for December 31, 2023, reporting periods and have not been early adopted by the Group (IFRS 18 - Presentation and Disclosure). The Group intends to adopt these new and amended standards and interpretations, if applicable, when they become effective. The Group is currently evaluating the impact of these new or amended standards and interpretations that are issued and become effective for the 2024 annual reporting period.

4 Basis of consolidation

The basis of consolidation includes the entities over which Centogene N.V. has control within the meaning of IFRS 10 Consolidated Financial Statements. According to IFRS 10, Centogene N.V. has control of an investee when it has direct or indirect power over the investee, exposure, or rights to variable returns from its involvement with the investee and the ability to use its power over the investee to affect those returns. Control is established when it is possible to influence operating and financial policies of the investee, typically with a share in the voting rights or shareholding of more than 50% in the investee. An entity is included in the Group's basis of consolidation from the point in time when the Group obtains control of the entity and ceases when the Group loses control of the subsidiary. Assets, liabilities, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated financial statements from the date the Group gains control until the date the Group ceases to control the subsidiary.

Profit or loss and each component of other comprehensive income are attributed to the equity holders of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full upon consolidation.

If the Group loses control over a subsidiary, it derecognizes the related assets, liabilities, non-controlling interest and other components of equity, while any resultant gain or loss is recognized in profit or loss.

As of March 31, 2022, operations at all COVID-19 testing sites ceased and the Group abandoned the COVID-19 business line. Consequently, the Group is reporting its COVID-19 segment as a discontinued operation (Note 9). With the decision to cease COVID-19 operations as of March 31, 2022, Centogene terminated its cooperation agreement with Dr. Bauer GmbH with a separation agreement effective as of April 2, 2022 and signed on August 23, 2022 (the "Separation Agreement"). With the COVID-19 business being discontinued and the collaboration agreement being terminated, Centogene's control over Dr. Bauer GmbH ceased; Centogene no longer meets the criteria of the control model under IFRS 10 as it no longer has exposure to variable returns and the ability to use power to affect returns through COVID-19 operations. Therefore, Centogene deconsolidated Dr. Bauer GmbH from its consolidated financial statements as of April 2, 2022 ("Deconsolidation Date"). The impact of the deconsolidation on the loss for the period and on the statement of cash flows is disclosed under Note 9 – Discontinued operations. The impact of the deconsolidation on the statement of financial position is disclosed under Note 27 – Related parties.

On June 26, 2023, as mentioned in Note 1, the Company entered into a joint venture agreement (the "Joint Venture Agreement") with Pharmaceutical Investment Company ("PIC" or "Lifera"), a closed joint stock company incorporated pursuant to the laws of Saudi Arabia and a wholly-owned subsidiary of the Public Investment Fund (PIF) based in Riyadh, to form a joint venture under the laws of Saudi Arabia. Management has analyzed the terms included in the contract analyzing the control over the JV under IFRS 10 (Note 6.2).

5 Significant accounting policies

The Group applied the following accounting policies consistently for all of the periods presented in these consolidated financial statements.

(a) Foreign currency and currency translation

The Group's consolidated financial statements are presented based on the parent company's functional currency. For each entity, the Group determines the functional currency and items included in the financial statements of each entity are measured using that functional currency. The Group uses the direct method of consolidation and on disposal of a foreign operation, the gain or loss that is reclassified to profit or loss reflects the amount that arises from using this method.

Transactions in foreign currency are translated into the respective entity's functional currency at the spot rate prevailing on the date of the transaction.

The functional currency of each entity is the respective local currency, since the entities carry out their business activities independently from a financial, economic and organizational perspective.

Monetary assets and liabilities denominated in foreign currency are translated to the functional currency using the closing rate at the reporting date. Currency translation differences are recognized immediately through profit or loss. Non-monetary items denominated in a foreign currency that are measured at historical cost are not translated at the reporting date.

On consolidation, the assets and liabilities of foreign operations are translated into Euros using the closing rate on the reporting date. Income and expenses of foreign operations are translated using the exchange rate prevailing on the date of the transaction or the annual average exchange rate. Equity is translated using historical rates until the entity is removed from the Group's basis of consolidation. Any resulting currency translation differences are recorded in other comprehensive income and recognized under the currency translation reserve in equity if the exchange difference is not allocable to the non-controlling interests.

The exchange rates used are presented in the following table:

	Average rate			Closing rate		
	2023	2022	2021	Dec 31, 2023	Dec 31, 2022	Dec 31, 2021
USD (EUR 1)	1.09	1.05	1.13	1.11	1.07	1.13
AED (EUR 1)	4.00	3.87	4.15	4.06	3.94	4.17
INR (EUR 1)	89.30	82.69	85.18	91.98	88.17	84.23
CHF (EUR 1)	0.94	1.00	1.08	0.93	0.98	1.03
SAR (EUR 1)	4.13	—	—	4.14	—	—
RSD (EUR 1)	116.91	117.46	117.39	116.91	117.33	117.27

(b) Revenues from contracts with customers

The Group provides pharmaceutical solutions and diagnostic tests, enabled by its knowledge and interpretation-based platform. Revenue from contracts with customers is recognized when control of the goods are transferred to the customer or over the time as services are performed, at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services.

(i) Pharmaceutical segment

The Group's contracts with customers relate to a variety of solutions provided to the Group's pharmaceutical partners in order to accelerate their development of treatments for rare diseases, including early patient recruitment and identification, epidemiological insights, biomarker discovery and patient monitoring. The collaboration agreements are structured on a fee per analysis basis, milestone basis, fixed fee basis, or a combination of these. In addition, some of the Group's contracts with its pharmaceutical partners also include sales of CentoCard filter cards for the collection of biological samples from patients.

The performance obligations in Pharmaceutical segment can either be satisfied over time, as the services are performed, or at a point in time depending on the structure of the collaborations, which are determined based on nature of the service provided, as detailed below.

- Revenue from early patient recruitment and identification, epidemiological insights, biomarker discovery and patient monitoring is based on fee per analysis, milestone fees and fixed fees. The revenues from these solutions are recognized over time using an input method based on the work rendered in order to measure progress towards complete satisfaction of the services.

- Revenue from the licensing of intellectual property for an unlimited period, usually in the structure of an upfront fee, is recognized at a point in time, when the right (or license) to use intellectual property is conveyed.

- Revenues from the licensing of intellectual property for a certain period, being a right to access such intellectual property as defined in IFRS 15, is recognized over time over the licensing period.

- Revenue from the sale of CentoCard filter cards is recognized at a point in time when the control of the CentoCard filter cards has transferred to the customer, which typically occurs on delivery.

(ii) Diagnostics segment

Revenues from the Group's Diagnostic segment are typically generated from genetic sequencing and diagnostics services that the Group provides to clients, who are typically physicians, laboratories or hospitals, either directly or through distributors. Revenues are based on a negotiated price per test or on the basis of agreements to provide certain testing volumes over defined periods. The Group has concluded that the services rendered in the Diagnostic segment comprise one performance obligation.

The performance obligation in the Diagnostics segment is recognized over time, as the services are performed, using an input method to measure progress towards complete satisfaction of the service. In order to measure progress, the Group uses a standardized process which measures progress to completion by stages, consisting of (i) a preparation stage, (ii) a clarification stage, (iii) a sequencing stage, and (iv) an output stage. The percentages attributed to those stages are indicative of the cost incurred in performing the respective stage in relation to total cost.

Contract balances

(i) Contract assets

A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Group satisfies a performance obligation by transferring goods or services to a customer before the customer pays consideration or before payment is due, a contract asset is recognized for the earned consideration that is conditional. Contract assets are subject to impairment assessment. Refer to accounting policies of impairment of financial assets in Note 5(o) “Financial instruments”.

(ii) Trade receivables

A receivable represents the Group’s right to an amount of consideration that is unconditional (i.e., only the passage of time is required before payment of the consideration is due). Refer to accounting policies of impairment of financial assets in Note 5(o) “Financial instruments”.

(iii) Contract liabilities

A contract liability is the obligation to transfer goods or services to a customer for which the Group has received consideration or an amount of consideration is due from the customer (whichever is earlier). If a customer pays consideration before the Group transfers goods or services to the customer, a contract liability is recognized when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognized as revenue when the Group performs under the contract.

(c) Finance income and finance costs

Interest income and expenses are recognized in the period which they relate to through profit or loss using the effective interest rate method.

(d) Current versus non-current classification

The Group presents assets and liabilities in the statement of financial position based on current/non-current classification. An asset is current when it is:

- Expected to be realized or intended to be sold or consumed in the normal operating cycle
- Held primarily for the purpose of trading
- Expected to be realized within twelve months after the reporting period; or
- Cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period

All other assets are classified as non-current.

A liability is current when:

- It is expected to be settled in the normal operating cycle
- It is held primarily for the purpose of trading
- It is due to be settled within twelve months after the reporting period; or
- There is no unconditional right to defer the settlement of the liability for at least twelve months after the reporting period
- A covenant breach has occurred and not resolved at year end from a loan

The terms of the liability that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

The Group classifies all other liabilities as non-current.

Deferred tax assets and liabilities are classified as non-current assets and liabilities.

(e) Intangible assets

Research and development

Expenses for research activities are recognized through profit or loss in the period in which they are incurred.

Development expenditures on an individual project are recognized as an intangible asset from the date the Group can demonstrate:

- the product or process is technically and commercially feasible so that the asset will be available for use or sale
- the Group has the ability and intention to use or sell the asset

- a future economic benefit is probable
- the Group has sufficient resources to complete the development and
- the development costs can be measured reliably.

The Group's research and development activities mainly relate to development of biomarkers where likelihood for future commercialization is probable, constant innovation for the Diagnostic and Pharmaceutical businesses with new or enhanced products, continuous improvement on the bioinformatics pipelines, AI capabilities and Medical Reporting automatization and IT driven solutions. With respect to biomarkers, the development stage is usually considered to be achieved when the target validation process is completed, and commercialization is probable. Regarding the innovation on bioinformatics, main efforts are put on enhancing the automatization of identification of disease-causing variants via variant prioritization and classification to speed up and improve diagnosis. In the realm of IT-driven solutions, there is a growing focus on automating data processing and analytics through cloud-based platforms.

Capitalized development costs are recognized at cost less accumulated amortization and any accumulated impairment losses. They are only amortized from the date the asset is ready for its intended use, which in the case of biomarkers is normally at the time the patent application for such biomarker is made. Amortization expense is recorded in cost of sales and research and development expenses.

Capitalized development costs which are still under development are tested for impairment annually and when circumstances indicate that the carrying value may be impaired.

Other intangible assets

Other intangible assets purchased by the Group with finite useful lives are recognized at cost less accumulated amortization and any accumulated impairment losses. Subsequent expenditure is only capitalized if it increases the future economic benefits of the respective asset.

Intangible assets are amortized over their estimated useful life using the straight-line method and assessed for impairment whenever there is an indication that the intangible asset may be impaired.

The estimated useful lives are as follows:

- Internally generated/acquired biomarkers: 7 years
- Internally developed database: 5-7 years
- Purchase rights, licenses and software: 3-7 years

The useful lives and depreciation methods are reviewed annually to ensure that the methods and periods of depreciation are consistent with the expected economic benefit from the asset.

(f) Property, plant and equipment

Property, plant and equipment are carried at cost less any accumulated depreciation and any accumulated impairment losses.

The cost of property, plant and equipment comprises its purchase price including customs duties and non-refundable acquisition taxes, and proportionate VAT not deductible from input tax as well as any directly attributable costs of bringing the asset to its working condition and location for its intended use.

Subsequent expenditure is only capitalized if it is probable that the future economic benefits associated with the expenditure will flow to the Group.

Depreciation is calculated over the estimated useful life using the straight-line method. The Group has assessed that none of its property, plant and equipment has a residual value. The estimated useful lives of significant property, plant and equipment are as follows:

- Buildings: 12 years
- Plant and other equipment, furniture and fixtures: 2-15 years

An item of property, plant and equipment is derecognized upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the statement of comprehensive loss when the asset is derecognized.

The depreciation methods, useful lives and residual values are reviewed, and adjusted prospectively if appropriate, as of each reporting date.

Assets under construction are reported at cost and are allocated to property, plant and equipment until they are completed and put into operational use, from which point onwards they are depreciated.

(g) Leases

Group as a lessee

The Group applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Group recognizes lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets.

(i) Right-of-use assets

The Group recognizes right-of-use assets at the commencement date of the lease (i.e., the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognized, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Unless the Group is reasonably certain to obtain ownership of the leased asset at the end of the lease term, the recognized right-of-use assets are depreciated on a straight-line basis over the shorter of its lease term and the estimated useful lives, as follows:

- Buildings: 33 years
- Offices: 4 – 12 years and
- Plant and other equipment, furniture and fixtures: 2-15 years

If ownership of the leased asset transfers to the Group at the end of the lease term or the cost reflects the exercise of a purchase option, depreciation is calculated using the estimated useful life of the asset.

The right-of-use assets are also subject to impairment. Refer to accounting policies of impairment of financial assets in Note 5(o) “Financial instruments”.

(ii) Lease liabilities

At the commencement date of the lease, the Group recognizes lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for leases reasonably certain to be terminated. The variable lease payments that do not depend on an index or a rate are recognized as expenses in the period during which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Group uses the incremental borrowing rate at the lease commencement date if the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the in-substance fixed lease payments or a change in the assessment to purchase the underlying asset.

(iii) Short-term leases and leases of low-value assets

The Group applies the short-term lease recognition exemption to its short-term leases of machinery and equipment (i.e., those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the lease of low-value assets recognition exemption to leases of office equipment that are considered of low value (i.e., below EUR 5k). Lease payments on short-term leases and leases of low-value assets are recognized as expenses on a straight-line basis over the lease term.

(iv) Sale and leaseback transactions

The Group applies IFRS 15 for determining if the transfer of an asset to the buyer (lessor) is to be accounted for as a sale of assets. After the sale of assets is concluded, the Group measures the right-of-use assets arising from the leaseback at the proportion of the previous carrying value of the asset that relates to the right of use retained by the Group. Accordingly, the Group recognizes only the amount of any gain or loss that relates to the rights transferred to the buyer (lessor).

If the fair value of the consideration for the sale of an asset does not equal the fair value of the asset, or if the payments for the leases are not at market rates, the Group makes the following adjustments to measure the sale proceeds at fair value:

- any below-market terms shall be accounted for as a prepayment of lease payments
- any above-market terms shall be accounted for as additional financing provided by the buyer-lessor to the seller-lessee.

(h) Investments in associates and joint arrangements

The Group assesses whether it has significant influence not only on the basis of its ownership percentage but also on the existence of qualitative factors such as representation on the board of directors of the investee, its participation in decision-making processes, interchange of managerial personnel and access to technical information. The Group assesses rights and obligations agreed to by the parties to a joint arrangement and, when relevant, other facts and circumstances in order to determine whether the joint arrangement in which it is involved is a joint venture or a joint operation. Management assessed the JV agreement mentioned in Note 1 can be determined as a joint venture based on the analysis over the different factors under the applicable standard (as voting rights, percentage of ownership, board reserves matter and resolutions), and concluded this should be accounted under equity method and therefore recognized at cost at the date of acquisition and subsequently adjusted for the Company's share in undistributed earnings or losses since acquisition, less any impairment incurred. Losses are presented in the consolidated statement of comprehensive loss in losses from investment accounted for by equity method.

Whenever there is an indication of impairment related to investments accounted for under the equity method, the Company performs an impairment test based, amongst others, on an estimate of its share in the present value of the projected future cash flows

expected to be generated by operations of associates and joint ventures and, similarly to impairment testing of tangible and intangible assets, including goodwill, the estimates, judgments and assumptions applied for the value in use calculations relate primarily to growth rates, expected changes to average selling prices, shipments and direct costs. Assumptions for average selling prices and shipments are based on historical experience and expectations of future changes in the market.

Gains and losses resulting from transactions involving assets that do not constitute a business, between the Company and its associate or joint venture are recognized in the Company's financial statements only to the extent of unrelated investors' interests in the associate or joint venture.

(i) Impairment of Non-current assets

Non-current assets, including tangible, intangible assets and investments in associates and joint ventures, are assessed at each reporting date for indicators of impairment. Whenever such indicators exist, or in the case of assets which are subject to an annual impairment test, the recoverable amount is estimated. An asset's recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future post-tax cash flows deriving from the use of the asset or its cash generating unit, as applicable, are discounted to their present value using a post-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset, provided that the result obtained is the same that would be obtained by discounting pre-tax cash flows at a pre-tax discount rate.

If the recoverable amount of an asset is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount, and an impairment loss is recognized as an expense under "Impairment losses" in the consolidated income statement.

The Group bases the calculation of impairment on the approved business plans of the various cash generating units to which the assets are allocated. The projected cash flows, based on the approved strategic business plans, cover a period of five years. Starting with the sixth year, an expected constant growth rate is applied.

(j) Inventories

Inventories are measured at the lower of cost and net realizable value. Inventories are recognized at cost based on the first in first out (FIFO) method.

Net realizable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to make the sale.

(k) Government grants

Government grants are recognized where there is reasonable assurance that the grant will be received and all attached conditions will be complied with. Grants that are intended to compensate the Group for expenses incurred are recognized through profit or loss in the period in which expenses are submitted and claimed.

Government grants which relate to an asset are initially recognized as deferred income at nominal amounts. They are subsequently released to profit or loss on a systematic basis over the expected useful life of the related asset.

The release of deferred income related to either type of grant is presented as other operating income (see Note 8.1).

(l) Share-based payments

Plan recipients (including senior executives and certain member of the Supervisory Board) of the Group receive remuneration in the form of share-based payments, whereby the recipients render services as consideration for equity instruments (equity-settled transactions) or settled in cash (cash-settled transactions). The Company has only equity-settled awards granted which were vesting in the fiscal periods 2021-2023.

Equity settled transactions

The cost of equity-settled transactions is determined by the fair value of the granted options or the granted Restricted Units ("RSU") or Stock Grants ("SGA") when the grant is made, using a Black-Scholes or Monte Carlo simulation model or share price on the grant date, with further details given in Note 23.

The cost is recognized in employee benefits expense (see Note 8.4) or other relevant expenses, together with a corresponding increase in equity (capital reserves), over the period in which the service conditions are fulfilled (the vesting period). The cumulative expense recognized for equity-settled transactions at each reporting date until the vesting date reflects the extent to which the vesting period has expired and the Group's best estimate of the number of equity instruments that will ultimately vest. The expense or credit in profit or loss for a period represents the movement in cumulative expense recognized as at the beginning and end of that period.

Service and non-market performance conditions are not taken into account when determining the grant date fair value of awards, but the likelihood of the conditions being met is assessed as part of the Group's best estimate of the number of equity instruments that will ultimately vest. Market performance conditions are reflected within the grant date fair value. Any other conditions attached to an award, but without an associated service requirement, are considered to be non-vesting conditions. Non-vesting conditions are reflected in the fair value of an award and lead to an immediate expensing of an award unless there are also service and/or performance conditions.

No expense is recognized for awards that do not ultimately vest because non-market performance and/or service conditions have not been met. Where awards include a market or non-vesting condition, the transactions are treated as vested irrespective of whether the market or non-vesting condition is satisfied, provided that all other performance and/or service conditions are satisfied.

(m) Provisions, contingent assets and contingent liabilities

A provision is recognized when the Group has a present obligation (legal, contractual or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. When the Group expects some or all of a provision to be reimbursed, for example, under an insurance contract, the reimbursement misrecognized as a separate asset, but only when the reimbursement is virtually certain. The expense relating to a provision is presented in the profit or loss net of any reimbursement. Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate.

If the requirements for recognizing a provision are not satisfied, the corresponding obligations are recorded as contingent liabilities unless the possibility of an outflow of resources embodying economic benefits is remote.

A contingent asset is a possible asset that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Group. The Group does not recognize a contingent asset. Contingent assets are disclosed in the notes if the inflow of economic benefits is probable, but not virtually certain. When the inflow of economic benefits becomes virtually certain, the asset is no longer contingent and its recognition is appropriate.

(n) Income taxes

Tax expense comprises current and deferred taxes. Current taxes and deferred taxes are recognized through profit or loss apart from deferred taxes related to items recognized outside profit or loss, in which case it is recognized in correlation to the underlying transaction either directly in equity or in other comprehensive income.

Current income tax assets and liabilities are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted at the reporting date in the countries where the Group operates and generates taxable income.

Deferred taxes are set up for temporary differences between the carrying amounts of assets and liabilities for group financial reporting purposes at the reporting date and the amounts used for tax purposes. Deferred tax liabilities are recognized for all taxable temporary differences, except:

- temporary differences arising from the initial recognition of assets or liabilities in the course of a business transaction that is not a business combination and does not affect either the accounting profit or the taxable profit or loss

- temporary differences associated with investments in subsidiaries if the Group controls the timing of the reversal of the temporary differences, and it is probable that the differences will not reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilized. Unrecognized deferred tax assets are re-assessed at each reporting date and are recognized to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realized or the liability is settled, based on tax rates that have been enacted or substantively enacted at the reporting date.

Deferred tax assets and deferred tax liabilities are offset against each other if certain conditions are met.

(o) Financial instruments

(i) Financial assets

The Group's financial assets principally consist of those accounted for as receivables, contract assets, financial assets at fair value through profit or loss and cash and cash equivalents.

Receivables and contract assets

Receivables, including contract assets, are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Contract assets and trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under IFRS 15. Refer to the accounting policies in note 5(b) "Revenues from contracts with customers".

After initial recognition, receivables and contract assets are subsequently carried at amortized cost using the effective interest rate method less any impairment losses. Gains and losses are recognized in the profit or loss for the period when the assets are derecognized or impaired.

Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss are carried in the statement of financial position at fair value with net changes in fair value recognized in the statement of profit or loss.

A derivative embedded in a hybrid contract, with a financial liability or non-financial host, is separated from the host and accounted for as a separate derivative if: the economic characteristics and risks are not closely related to the host; a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and the hybrid contract is not measured at fair value through profit or loss. Embedded derivatives are measured at fair value with changes in fair value recognized in profit or loss. Reassessment only occurs if there is either a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required or a reclassification of a financial asset out of the fair value through profit or loss category.

Derecognition

A financial asset or a part of a financial asset is derecognized when the Group no longer has the contractual rights to the asset or the right to receive cash flows from the asset have expired.

Impairment

The Group recognizes an allowance for expected credit losses (ECLs). ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate.

The Group applies a simplified approach in calculating ECLs. Therefore, the Group does not track changes in credit risk, but instead recognizes a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

The Group considers a financial asset in default when contractual payments are 360 days past due. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

Further disclosures relating to impairment of trade receivables, including contract assets, are in Note 23.

(ii) Financial liabilities

All financial liabilities are recognized initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Group's financial liabilities include trade and other payables, loans and borrowings including bank overdrafts and derivative financial instruments, including warrant liabilities.

Loans and borrowings

Loans and borrowings are initially recognized at fair value and subsequently measured at amortized cost using the effective interest rate method, taking into account any principal repayments and any discount or premium on acquisition and including transaction costs and fees that are an integral part of the effective interest rate.

Gains or losses are recognized through profit or loss at the time the liabilities are derecognized or disposed of.

Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities designated upon initial recognition as at fair value through profit or loss. Financial liabilities are classified as held for trading if they are incurred for the purpose of repurchasing in the near term. This category also includes derivative financial instruments entered into by the Group that are not designated as hedging instruments in hedge relationships as defined by IFRS 9. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments. Gains or losses on liabilities held for trading are recognized in the statement of profit or loss. Financial liabilities designated upon initial recognition at fair value through profit or loss are designated at the initial date of recognition, and only if the criteria in IFRS 9 are satisfied.

Warrant liabilities

Warrants are classified as equity to the extent that they confer the right to purchase a fixed number of shares for a fixed exercise price. In the event that the exercise price or the numbers of shares to be issued are not deemed to be fixed, the warrants are

classified as a non-current derivative financial liability. Since the exercise price of the warrants is determined in US dollars which is different from the Company's functional currency, warrants are classified as liabilities. This liability is initially recognized at its fair value on the date the contract is entered into and subsequently accounted for at fair value through profit and loss (FVTPL) at each reporting date. As the warrants are classified as financial liabilities at FVTPL, the transaction costs are expensed in the consolidated statements of comprehensive loss.

Derecognition

A financial liability is derecognized when the obligation underlying the liability is discharged, canceled or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognized through profit or loss.

(p) Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and bank balances, including short-term, highly liquid investments that can be quickly converted into cash amounts. These have original maturities of three months or less and are subject to a low risk of fluctuation in value.

(q) Discontinued operations

A discontinued operation is a component of an entity that either has been disposed of, or that is classified as held for sale. It must either (i) represent a major separate line of business or geographical area of operations; (ii) be part of a single coordinated disposal plan; or (iii) be a subsidiary acquired exclusively with a view to resale. A component also qualifies for presentation as a discontinued operation when activities are ultimately ended (abandoned). Non-current assets and disposal groups are not classified as assets held for sale if their carrying amount is to be recovered through continuing use.

In 2021, the Group decided to end its COVID-19 business activities, effective Q1 2022. The Group assessed that ending the activities of this operating segment would qualify as a discontinued operation. Therefore, the profit or loss related to the COVID-19 business was presented in a separate line item of the profit and loss section of the consolidated statements of comprehensive loss for the years ended December 31, 2022 and 2021. Since the operations were discontinued through winding-down of the COVID-19 business, no assets or liabilities were required to be disclosed separately on the statements of financial position. The segment reporting note and notes to the consolidated financial statements for the years ended December 31, 2023, 2022 and 2021, only represent continuing operations. For further details on the discontinued operations refer to Note 9 – Discontinued operations.

6 Accounting judgments and estimates

The preparation of the consolidated financial statements requires the management board to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of revenues, expenses, assets and liabilities, and the accompanying disclosures. Actual results could differ from those estimates. Estimates and underlying assumptions are reviewed on an ongoing basis and revisions of estimates are recorded prospectively.

6.1 Judgments

Provision for expected credit losses of trade receivables and contract assets

The Group uses a provision matrix to calculate ECLs for trade receivables and contract assets. The provision rates are based on days past due for groupings of various customer segments that have similar loss patterns (e.g. by segment, geography, customer type and rating).

The provision matrix is initially based on the Group's historical observed default rates.

The assessment of the correlation between historical observed default rates and ECLs is a significant estimate. The amount of ECLs is sensitive to changes in circumstances and of forecasted economic conditions. The Group's historical credit loss experience and forecast of economic conditions may also not be representative of customer's actual default in the future. The information about the ECLs on the Group's trade receivables and contract assets is disclosed in Note 23.2.

Deferred tax asset on loss carryforwards

The tax losses carried forward do not expire. In the light of the Company's loss history, the recognition of deferred taxes for tax losses carried forward and deductible temporary differences is limited to the future reversal of existing taxable temporary differences.

Fair value measurement of financial instruments

When the fair values of financial assets and liabilities recorded in the statement of financial position cannot be measured based on quoted prices in active markets, their fair values are measured using valuation techniques including the discounted cash flow model and option pricing models. The inputs to these models are taken from observable markets where possible, but where this is not feasible, a degree of judgement is required in establishing fair values. For the valuation of the loan hosting a multiple embedded option the Group used the Leveraged Loan Index spread for B- companies as boundary conditions. See Note 23.1 for further details.

Revenue implicit concession

The Group has a diagnostics customer in the Middle Eastern region with a history of significant payment delays. This history has resulted in the recognition of significant subsequent impairment losses by applying the expected credit loss method as the collection of the contractual consideration was historically considered probable upon recognition of revenue. In 2021, based on the developments in its collection experience, additional negotiations with the customer, and past experiences, the Group considered it necessary to reassess its judgments related to the recognition of revenue from contracts with this customer.

The Group's management concluded, based on the facts and circumstances and management's expectations regarding this customer, that this uncertainty in the amount of the contract consideration it expects to collect, and the likelihood of accepting a lower amount or changing payment terms represents an "implicit price concession" such that the contract consideration is variable.

Therefore, the Group's management estimates the amount of the contractual consideration it expects to ultimately collect and for which it is highly probable that related revenue recognized would not be subject to significant future reversals when such uncertainty is resolved. The Group's management estimates the implicit price concessions by applying an estimated rate of 5% (2022: 2%; 2021: 18%, based primarily upon past collection history).

Despite the uncertainties related to the amount expected to be collected from the customer, based on experience and the facts and circumstances related to the customer, the Group considers it probable that it will collect 95% (2022: 98%; 2021: 82%) of the amount of estimated variable transaction price due to newly agreed payment plans established with the customer. Therefore, the Group records the difference between the billed amount and the amount estimated to be collectible as a reduction to revenue. At the end of each reporting period, and if necessary upon receipt of new information, the Group may revise the amount of the variable consideration included in the transaction price. The Group has applied this accounting policy and accounting estimate to arrangements with this customer prospectively with effect from the third quarter of 2021.

Investment in Joint Venture

On June 26, 2023, as mentioned in Note 1, the Company entered into a joint venture agreement (the "Joint Venture Agreement") with Pharmaceutical Investment Company ("PIC" or "Lifera"), a closed joint stock company incorporated pursuant to the laws of Saudi Arabia and a wholly-owned subsidiary of the Public Investment Fund (PIF) based in Riyadh, to form a joint venture under the laws of Saudi Arabia. Management has analyzed the terms included in the contract analyzing the control over the JV under IFRS 10, considering such as voting rights, percentage of ownership, board reserves matter and resolutions, concluding the Company has joint control over the "JV", classifying the investment as an investment in a Joint Venture under IAS28 – refer to Note 15 Investment in Joint Venture.

6.2 Assumptions and estimation uncertainties

Going Concern

On November 12, 2024, the Company and Charme IV ("Charme"), an Italian Fund represented by Charme Capital Partners Limited entered into a share purchase agreement ("Share Purchase Agreement"), for the acquisition by Charme (or an affiliate of Charme) of all issued and outstanding shares in the capital of Centogene GmbH and certain intra-group receivables (such transactions, collectively, the "Transaction"), for an aggregate purchase price of (i) EUR 8,717,906.80 in cash to be paid upon the consummation of the Transaction (the "Closing") and (ii) the assumption by Charme (or an affiliate of Charme) at Closing of the Company's rights, obligations and liabilities under the existing convertible loan agreement, dated as of October 26, 2023, between the Company and PIC (as amended to date, the "Convertible Loan Agreement").

See Note 2.2 to the Consolidated Financial Statements for further details over to the assumptions and estimation uncertainties related to the going concern.

Share-based payments

Estimating fair value for share-based payment transactions requires a determination of the most appropriate valuation model, which depends on the terms and conditions of the grant. For the measurement of the fair value of equity-settled transactions at the grant date (including those issued to replace the cash-settled transactions), the Group uses the Monte Carlo simulation model. The fair value at grant date of equity-settled transactions is not updated at the end of each reporting period.

7 Segment information and revenue from contracts with customers

7.1 Segment information

For management purposes, the Group is organized into business units based on its products and services. In line with the management approach, the operating segments were identified on the basis of the Group's internal reporting and how the chief operating decision maker ("CODM") assesses the performance of the business. On this basis, the Group has the following two operating segments, which also represent the Group's reportable segments:

- **Pharmaceutical segment:** This segment provides a variety of solutions to our pharmaceutical partners, including target and drug screening, clinical development, market access and expansion, as well as CENTOGENE Biodatabank Licenses and Insight Reports; and

- **Diagnostic segment:** This segment provides genetic sequencing and diagnostics services to our clients, who are typically physicians, laboratories or hospitals, either directly or through distributors.

- **JV segment:** As disclosed in Note 1, on June 26, 2023, the Company entered into a joint venture agreement (the "Joint Venture Agreement"), with Pharmaceutical Investment Company ("PIC" or "Lifera"). This segment provides the income from the IP sale and the costs related to setting up the JV (see Note 15 – Investment in Joint Venture).

In 2021, the Group decided to end its COVID-19 business activities in Q1 2022. The Group assessed that ending the activities of this operating segment would qualify as a discontinued operation. Therefore, the profit or loss related to the COVID-19 business is presented in a separate line item of the profit and loss section of the consolidated statements of comprehensive loss for the years ended December 31, 2023, 2022, and 2021 (see Note 9 – Discontinued Operations).

The management board is the CODM and monitors the operating results of the segments separately for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on segment results and is measured with reference to the Adjusted EBITDA. Adjusted EBITDA is a financial measure which is not prescribed by IFRS, which the Group defines as income/loss before finance costs (net), taxes, and depreciation and amortization (including impairments), adjusted to exclude corporate expenses, one-off costs as well as share-based payment expenses.

Corporate expenses, interest and similar income and expenses, as well as share-based payment expenses are not allocated to individual segments as the underlying instruments are managed on a group basis. Assets and liabilities are managed on a Group basis and are not allocated to the different segments for internal reporting purposes. Therefore, our CODM does not regularly review this information by segment and accordingly we do not report this information by segment.

	2023				
in EUR k	**Pharmaceutical**	**Diagnostics**	**JV**	**Corporate**	**Total**
Total Revenues from contracts with external customers	14,802	33,734	—	—	**48,536**
Adjusted EBITDA	**1,589**	**5,087**	**4,462**	**(30,258)**	**(19,120)**
Other segment information					
Depreciation and amortization (including impairments)	877	1,338	—	5,395	**7,610**
Research and development expenses	—	—	—	12,361	**12,361**
Share of income (loss) of investments accounted for by the equity method	—	—	(302)	—	**(302)**
Capital Expenditures					
Additions to property, plant and equipment and right-of-use assets	18	12	—	1,864	**1,894**
Additions to intangible assets	182	—	—	2,057	**2,239**

	2022				
in EUR k	**Pharmaceutical**	**Diagnostics**	**JV**	**Corporate**	**Total**
Total Revenues from contracts with external customers	16,115	31,358	—	—	**47,473**
Adjusted EBITDA	**6,802**	**6,438**	**—**	**(41,097)**	**(27,857)**
Other segment information					
Depreciation and amortization (including impairments)	801	1,790	—	6,340	**8,932**
Research and development expenses	—	—	—	17,488	**17,488**
Share of income (loss) of investments accounted for by the equity method	—	—	—	—	—
Capital Expenditures					
Additions to property, plant and equipment and right-of-use assets	1,244	910	—	1,225	**3,379**
Additions to intangible assets	162	14	—	1,551	**1,727**

	2021				
in EUR k	**Pharmaceutical**	**Diagnostics**	**JV**	**Corporate**	**Total**
Total Revenues from contracts with external customers	15,641	26,593	**—**	—	**42,234**
Adjusted EBITDA	**4,785**	**3,030**	**—**	**(45,939)**	**(38,124)**
Other segment information					
Depreciation and amortization (including impairments)	2,076	2,539	—	5,849	**10,464**
Research and development expenses	—	—	—	19,297	**19,297**
Share of income (loss) of investments accounted for by the equity method	—	—	—	—	—
Capital Expenditures					
Additions to property, plant and equipment and right-of-use assets	690	261	—	936	**1,887**
Additions to intangible assets	2,401	—	—	386	**2,787**

Adjustments to income/ loss include non-cash charges in relation to depreciation, amortization (including impairments), one-off costs, share-based payments as well as net financial costs and income taxes. Certain costs, and related income, are not allocated to the reporting segment results and represent the residual operating activities of the Group reported as 'Corporate'. These costs include general financing costs and corporate overheads related to, centralized functions such as communications, information technology, facilities, legal, finance and accounting, insurance (D&O), human resources, business development and strategic initiatives, certain professional and consulting services, procurement, research and development and other supporting activities.

Corporate expenses contain the costs incurred for the process of obtaining the equity and debt financing amounted to EUR nil (2022: EUR 2,161k; 2021: nil). Corporate expenses for the year ended 2022 and 2021 also included expenses incurred in relation to capital raising activities (2022: EUR 450k; 2021: EUR nil).

Reconciliation of segment Adjusted EBITDA to Group loss for the period

in EUR k	**2023**	**2022**	**2021**
Reportable segment Adjusted EBITDA	**11,138**	**13,240**	**7,815**
Corporate expenses	(30,258)	(41,097)	(45,939)
	(19,120)	**(27,857)**	**(38,124)**
Share- based payment expenses (Note 22)	(2,929)	16	(8,035)
Depreciation and amortization (including impairments)	(7,610)	(8,932)	(10,464)
Operating loss	**(29,659)**	**(36,773)**	**(56,623)**
Financial costs, net	(5,284)	(1,823)	(799)
Investments accounted for by the Equity method	(302)	—	—
Income taxes	(287)	(107)	70
Loss for the year	**(35,532)**	**(38,703)**	**(57,352)**

Under share-based payment expenses, the Company has capitalized EUR 202k as transaction cost directly linked to convertible loan agreement signed in October 26, 2023 (Note 21) that were deducted from the Company´s income statement.

Non-current asset locations

Non-current assets of the Group consist of right-of-use assets (under IFRS 16), property, plant and equipment, as well as intangible assets. All of such assets are located in Germany, which is the country of the business address of the Centogene GmbH, except for property, plant and equipment of EUR 14k (2022: EUR 76k; 2021: EUR 147k) and right-of-use assets for EUR nil as of December 31, 2023 (2022: EUR nil; 2021: EUR 137k), which are located in the United States.

7.2 Revenue from contracts with customers

in EUR k	2023		
	Pharmaceutical	Diagnostics	Total
Rendering of services	14,318	33,734	48,052
Sales of goods	484	—	484
Total Revenues from contracts with external customers	**14,802**	**33,734**	**48,536**
Recognized over time	14,318	33,734	48,052
Recognized at a point in time	484	—	484
Total Revenues from contracts with external customers	**14,802**	**33,734**	**48,536**
Geographical information			
Europe	291	7,438	7,729
*—Germany**	—	95	95
*—Netherlands***	—	2	2
Middle East	344	20,395	20,739
—Saudi Arabia#	143	13,236	13,379
North America	14,126	748	14,874
—United States#	14,126	708	14,834
Latin America	41	4,265	4,306
Asia Pacific	—	888	888
Total	**14,802**	**33,734**	**48,536**

in EUR k	2022		
	Pharmaceutical	Diagnostics	Total
Rendering of services	15,420	31,358	46,778
Sales of goods	695	—	695
Total Revenues from contracts with external customers	**16,115**	**31,358**	**47,473**
Recognized over time	15,420	31,358	46,778
Recognized at a point in time	695	—	695
Total Revenues from contracts with external customers	**16,115**	**31,358**	**47,473**
Geographical information			
Europe	361	5,927	6,288
*—Germany**	—	307	307
*—Netherlands***	—	7	7
Middle East	352	19,549	19,902
—Saudi Arabia#	—	12,412	12,412
North America	15,346	1,245	16,591
—United States#	15,346	1,179	16,525
Latin America	56	3,851	3,907
Asia Pacific	—	786	786
Total	**16,115**	**31,358**	**47,473**

in EUR k	2021		
	Pharmaceutical	Diagnostics	Total
Rendering of services	14,879	26,593	41,472
Sales of goods	762	—	762
Total Revenues from contracts with external customers	**15,641**	**26,593**	**42,234**
Recognized over time	14,879	26,593	41,472
Recognized at a point in time	762	—	762
Total Revenues from contracts with external customers	**15,641**	**26,593**	**42,234**
Geographical information			
Europe	490	5,425	5,915
*—Germany**	—	211	211
*—Netherlands***	—	6	6
Middle East	117	16,315	16,432
—Saudi Arabia#	—	9,865	9,865
North America	14,940	1,643	16,583
—United States#	14,940	1,456	16,396
Latin America	94	2,499	2,593
Asia Pacific	—	711	711
Total	**15,641**	**26,593**	**42,234**

* country of the incorporation of Centogene GmbH

** country of the incorporation of Centogene N.V.

countries contributing more than 10% of the Group's total consolidated revenues for the respective year ended December 31, 2023, 2022 or 2021

The Group collaborated with the majority of our pharmaceutical partners on a worldwide basis in 2023, 2022 and 2021. In addition, in cases where our pharmaceutical partners are developing a new rare disease treatment, it is generally anticipated that the final approved treatment will be made available globally. As a result, we allocate the revenues of our Pharmaceutical segment by geographical region by reference to the location where each pharmaceutical partner mainly operates, which is based on the region from which most of their revenues are generated. The allocation of revenues in our Diagnostic segment is based on the location of each customer.

Pharmaceutical segment

During the year ended December 31, 2023, revenues from one pharmaceutical partner represented 12.6% of the Group’s total revenues (2022: 15.5%; 2021: 24.8%). As of December 31, 2023, the amount of revenues recognized that were included in the contract liability balance at the beginning of the period is EUR 372k (2022: EUR 1,951k; 2021: EUR 3,201k).

During the year ended December 31, 2023, Centogene entered into several collaborations with pharmaceutical partners, of which upfront fees totaling EUR 256k were received (2022: EUR 566k; 2021 EUR 455k) in relation to setup fees which will be recognized as revenue over the period of the partnership collaboration.

Diagnostics segment

During the year ended December 31, 2023, revenues from Diagnostic segment represented 70% of the Group’s total revenues (2022: 66%; 2021: 63%). Revenues from the major diagnostic partner represented 20.0% of the Group’s total revenues.

8 Other income and expenses

8.1 Other operating income

in EUR k	2023	2022	2021
Government grants	1,488	1,958	2,263
Gain on disposal of property, plant and equipment	56	53	18
VAT refund from tax authorities	1,953	970	—
Sale of IP to JV	7,549	—	—
Others	802	793	613
Total other operating income	**11,848**	**3,774**	**2,894**

Government grants contain performance-based grants to subsidize research, development and innovation in the state of Mecklenburg-Western Pomerania from funds granted by the European Regional Development Fund. Furthermore, government grants contain the release of deferred income from investment related grants. VAT refund from tax authorities consist of the amounts received from 2016 to 2019 financial years as a result of a change made to the VAT tax declarations of Centogene GmbH in agreement with the tax administration in Germany. Based on the Technology Transfer and Intellectual Property License Agreement mentioned in Note 1, the Company has recognized a gain of EUR 7,549k related to income pertaining to the transfer of technology and the license of the company's Intellectual Property ("IP").

Contract balances

in EUR k	Dec 31, 2023	Dec 31, 2022
Trade receivables (note 17)	16,804	13,637
Contract assets (note 17)	2,611	2,911
Contract liabilities (note 21.2)	694	651

The contract assets primarily relate to the Group's rights to consider for work completed but not billed at the reporting date on the tests for the Diagnostic segment, with the satisfaction of the respective performance obligation measured by reference to stages in a standardized process. The contract assets also include work performed for pharmaceutical partners which are based on milestone fees. In 2023, EUR 26k (2022: EUR 10k; 2021: EUR 483k) was recognized as provision for expected credit losses on contract assets (see Note 23.2). The contract assets are transferred to receivables when the rights become unconditional. This usually occurs when the Group issues an invoice to the customer.

The contract liabilities as of December 31, 2023, amount to EUR 694k (2022: EUR 651k; 2021: EUR 2,506k) which relate to the advance consideration, from which EUR 464k relates to pharmaceutical partners for which revenue is recognized over time.

8.2 Other operating expenses

in EUR k	2023	2022	2021
Currency losses	431	741	86
Total other operating expenses	**431**	**741**	**86**

8.3 Financial costs, net

in EUR k	2023	2022	2021
Interest expenses from loans	(7,622)	(2,934)	(218)
Changes in FV of warrants	(159)	2,574	—
Changes in FV of floor	134	(376)	—
Changes in FV of prepayment option	288	510	—
Currency income/(loss)	2,445	(963)	—
Unwinding of the discount on lease liabilities	(579)	(637)	(584)
Interest income from loans and receivables	209	3	3
Total Financial costs, net	**(5,284)**	**(1,823)**	**(799)**

On January 31, 2022, the Company entered into the Loan Agreement with Oxford Finance LLC, whose terms have been modified on November 1, 2023. The interest expenses recognized for it during 2023 were EUR 5,881k (2022: EUR 2,806k; 2021: EUR nil). Related to the Oxford Loan, the Company also recognized EUR 1,408k of currency gains (2022: EUR 963k losses ; 2021: EUR nil) for the effects of the foreign exchange, EUR 288k (2022: EUR 510k; 2021: EUR nil) as positive impact of the changes in the fair value of the prepayment option, and EUR 134k as positive impact of the changes in the fair value of the floor (2022: EUR 376k ; 2021: EUR nil as negative impact).

In addition, the Company entered into a Convertible Loan Agreement as stated in Note 21.1. The interest expenses recognized for it during 2023 were EUR 1,656k (2022: EUR nil; 2021: EUR nil). In addition, the Company also recognized EUR 1,111k of currency gains (2022: EUR nil; 2021: EUR nil) for the effects of the foreign exchange.

8.4 Employee benefits expense

in EUR k	2023	2022	2021
Wages and salaries	28,192	29,690	32,655
Social security contributions	4,499	4,415	4,588
Share- based payments	2,158	(1,461)	5,471
Termination benefits	812	319	1,158
Total	**35,661**	**32,963**	**43,872**

Social security contributions include contributions to state pension scheme of EUR 1,745k (2022: EUR 1,790k; 2021: EUR 2,706k) as defined contribution plan expenses. Additionally, the Company recognized compensation expense of EUR 864k (2022: EUR 1,631k; 2021: EUR 3,252k) for remuneration of supervisory board members, including share-based payments.

During 2022, due to the departure of the former CEO Andrin Oswald, the former CFO René Just and former CIO Volkmar Weckesser in 2022, the share-based payment expenses included reversals of in previous periods recognized expenses based on cancelations and forfeiture of EUR 3,104k.

9 Discontinued Operations

At the end of the third quarter of 2021, management updated its long-term outlook for the COVID-19 testing business, which led to management’s decision to initiate a wind down process in which lease contracts at unprofitable COVID-19 testing sites would not be renewed. Similarly, COVID-19 related inventory levels were significantly ramped down to align with the needs of the remaining test sites and laboratories.

As of March 31, 2022, operations at all COVID-19 testing sites have ceased. The Company has not renewed any of the COVID-19 testing site leases and abandoned the COVID-19 business line. Consequently, the Company reported its COVID-19 segment as a discontinued operation.

All COVID-19 related property, plant and equipment were fully depreciated as of March 31, 2022. In addition, all COVID-19 related accounts receivable and accounts payable were included in the balance sheet as of March 31, 2022 whilst all COVID-19 related inventory were written down to zero.

As detailed in Note 5 (q), with the discontinuation of the COVID-19 business, the Group signed the Separation Agreement to terminate the collaboration agreement signed with Dr. Bauer GmbH, effective as of April 2, 2022. The Group deconsolidated Dr. Bauer GmbH from its financial statements as of that date and disclosed the impact of the deconsolidation under discontinued operations. With the Separation Agreement, Centogene ensures that any COVID-19 business related future obligations that might arise from the past activities of Dr. Bauer GmbH will be paid by Centogene in exchange for the EUR 1,640k termination fee which was recognized under Net income from discontinued operations, net of tax for the year ended December 31, 2022.

The impact of the Separation Agreement on net income for the period 2022 was EUR 1,640k, was recognized under discontinued operations.

Discontinued operations are presented separately from continuing operations in the consolidated statements of comprehensive loss and consolidated statements of cash flows.

in EUR k	2023	2022	2021
Results of discontinued operations			
Revenue	-	19,455	146,334
Cost of sales	-	15,120	131,713
Gross profit	**-**	**4,335**	**14,621**
General administrative expenses	-	503	3,259
Selling expenses	-	7	534
Other operating income	-	3,096	373
Other operating expenses	-		
Operating income	**-**	**6,921**	**11,201**
Financial costs, net	**-**	**46**	**49**
Income before taxes	**-**	**6,875**	**11,152**
Income tax expense	-	13	46
Income for the period	**-**	**6,862**	**11,106**
Total comprehensive income, attributable to equity holders of the parent	**-**	**6,862**	**11,106**
Net income per share - Basic and diluted (in EUR)	**-**	**0.26**	**0.49**

10 Income taxes

Taxes recognized through profit or loss:

in EUR k	2023	2022	2021
Current tax expenses	**85**	**(152)**	**(72)**
Current year	(41)	(144)	(56)
Adjustments for prior periods	126	(8)	(16)
Deferred tax (expense)/income	**(372)**	**45**	**142**
Temporary differences	(372)	45	142
Tax losses	—	—	—
Total income tax (expenses)/benefit	**(287)**	**(107)**	**70**

No income taxes were recognized directly in other comprehensive income for the years ended December 31, 2023, 2022 and 2021.

A reconciliation of the effective tax rate to the Group's statutory rate of 32.1% for the year ended December 31, 2023, and 31.2% for the years ended December, 31, 2022 and December, 31, 2021, respectively are presented in the table below.

in EUR k	2023	2022	2021
Loss before tax	**(35,245)**	**(38,596)**	**(57,532)**
Taxes on the basis of the Company's domestic tax rate	11,314	12,390	14,642
Tax rate effect of foreign tax jurisdictions	(843)	78	882
Non- deductible expenses	(3,530)	(125)	(3,030)
Current year losses for which no deferred tax assets were recognized	(7,088)	(12,472)	(12,211)
Tax income related to prior years	125	(37)	(17)
Other effects	(265)	59	(196)
Income tax (expenses)/ benefit	**(287)**	**(107)**	**70**

The domestic tax rate of 32.1% is composed of the corporate income tax rate of 15%, the solidarity surcharge of 5.5% of this corporate income tax, as well as trade tax of 16.3%. The tax rate effects from foreign tax jurisdictions are primarily attributable to the tax-exempt profit of a foreign Group subsidiaries.

Tax losses carryforwards for which no deferred tax assets were recognized amount to EUR 152,782k in Germany (2022: EUR 133,512k; 2021: EUR 85,639k) and to EUR 4,513k in other countries (2022: EUR 2,348k; 2021: EUR 1,083k). Deductible temporary differences, for which no deferred tax asset is recognized, amount to EUR 3,835k.

Tax losses carried forward in Germany do not expire. Foreign tax losses carried forward may be restricted. In the light of the Group's loss history, the recognition of deferred taxes for tax losses carried forward and deductible temporary differences was limited to the future reversal of existing taxable temporary differences.

For temporary differences associated with investments in the amount of EUR 8,230k (2022: EUR 7,106k; 2021: EUR 5,656k), no deferred tax liability has been recognized because the Company is able to control the timing of the reversal and it is probable that the difference will not reverse in the foreseeable future.

The below table shows a breakdown of deferred taxes in the Group's statement of financial position.

	December 31, 2023		December 31, 2022		December 31, 2021	
in EUR k	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets	—	(1,084)	—	(2,184)	—	(2,439)
Property, plant and equipment	—	(6)	—	(21)	—	(14)
Right-of-use assets	—	(4,158)	—	(4,186)	—	(4,617)
Measurement of service contracts	158	—	—	(35)	—	(42)
Leasing liabilities	4,082	—	4,168	—	4,563	—
Government grants	915	—	1,679	—	1,693	—
Loan Liability (Oxford)	—	(423)	—	—	—	—
Loan Liability (Convertible)	—	(643)	—	—	—	—
Measurement of Fx-effects unrealized	—	(602)	—	—	—	—
Unused tax losses	1,354	—	544	—	777	—
Sum	**6,509**	**(6,916)**	**6,391**	**(6,426)**	**7,033**	**(7,112)**
Offset	**(6,509)**	**6,509**	**(6,391)**	**6,391**	**(7,033)**	**7,033**
Deferred Taxes	**—**	**(407)**	**—**	**(35)**	**—**	**(79)**

11 Loss Per Share

Basic loss per share is calculated by dividing loss for the period attributable to equity holders of the Group by the weighted average number of shares outstanding during the same period. The weighted average number of outstanding shares for the year ended December 31, 2023 was 28,162,842 (2022: 26,811,357; 2021: 22,437,301).

For the periods included in these financial statements, the impact of outstanding share options and warrants are not included in the diluted loss per share calculation as the Company was loss-making in all periods. Due to the anti-dilutive nature of the outstanding share options and warrants, basic and diluted loss per share is equal. The warrants are exercisable for the purchase of up to an aggregate of 1,343,727 additional common shares as of December 31, 2023 (2022: 1,343,727; 2021: nil).

Assets

12 Intangible assets

Reconciliation of carrying amounts

in EUR k	Internally generated /acquired biomarkers	Internally developed databases	Purchased rights, licenses, software	Total
Cost				
As of Jan 1, 2021	**13,922**	**9,219**	**4,899**	**28,040**
Additions	749	1,652	386	2,787
Reclassification	(297)	297	—	—
As of Dec 31, 2021	**14,374**	**11,168**	**5,285**	**30,827**
Additions	162	1,515	50	1,727
Reclassification	—	—	—	—
As of Dec 31, 2022	**14,536**	**12,683**	**5,335**	**32,554**
Additions	182	—	2,057	2,239
Reclassification	—	(1,516)	1,516	—
As of Dec 31, 2023	**14,718**	**11,167**	**8,908**	**34,793**
Accumulated amortization and impairment				
As of Jan 1, 2021	**10,748**	**2,713**	**2,172**	**15,633**
Amortization and impairment	2,149	1,991	1,860	6,000
Reclassification	(68)	68	—	—
As of Dec 31, 2021	**12,829**	**4,772**	**4,032**	**21,633**
Amortization and impairment	801	1,845	875	3,521
Reclassification	—	—	—	—
As of Dec 31, 2022	**13,630**	**6,617**	**4,907**	**25,154**
Amortization and impairment	766	1,408	615	2,789
Reclassification	—	—	—	—
As of Dec 31, 2023	**14,396**	**8,025**	**5,522**	**27,943**
Carrying amounts				
As of Dec 31, 2021	**1,545**	**6,396**	**1,253**	**9,194**
As of Dec 31, 2022	**906**	**6,066**	**428**	**7,400**
As of Dec 31, 2023	**322**	**3,142**	**3,386**	**6,850**

Development costs and amortization

Internally generated intangible assets include capitalized development costs for biomarkers and IT driven solutions such as the new ERP system (see notes 5 and 6 regarding measurement). The asset category “Internally developed databases” contains the

Centometabolome, an Artificial Intelligence module created to accelerate biomarker developments. The carrying amount of this asset as of December 31, 2023, is EUR 1,818k (2022: EUR 2,181k; 2021: EUR 2,540k), and the remaining useful life as of December 31, 2023 is five years.

The amortization of patents, trademarks and development costs is expensed and recorded under “cost of sales” to the extent the related intangible assets are used in generating revenue and recorded in research and development expenses to the extent the related intangible assets are used for R&D purposes.

Certain identified biomarkers and internally developed databases were impaired because the probable future economic benefits related to these assets were not sufficient to cover the carrying value of each asset. The impairment is expensed under cost of sales and included in amortization and impairment expense in the Pharmaceutical segment. The amount of the impairment expenses recognized as of December 31, 2023, is EUR 446k (2022: EUR 158k; 2021: EUR 1,067k).

13 Property, plant and equipment

Please refer to the following table for the development from January 1, 2021 to December 31, 2023:

in EUR k	Buildings	Plant	Other equipment, furniture and fixtures	Total
As of Jan 1, 2021	**3,359**	**14,124**	**12,590**	**30,073**
Additions	5	144	2,766	2,915
Disposal*	—	(379)	(718)	(1,097)
Transfers from right-of-use assets***	—	1,165	—	1,165
As of Dec 31, 2021	**3,364**	**15,054**	**14,638**	**33,056**
Additions	—	24	504	528
Disposal**	—	(66)	(3,021)	(3,087)
Currency translation differences	3	11	20	34
Transfers from right-of-use assets***	—	2,628	—	2,628
As of Dec 31, 2022	**3,367**	**17,651**	**12,141**	**33,159**
Additions	—	—	40	40
Disposal	—	(290)	(61)	(351)
Currency translation differences	(2)	(5)	(12)	(19)
Transfers from right-of-use assets***	—	3,639	—	3,639
As of Dec 31, 2023	**3,365**	**20,995**	**12,108**	**36,468**
Accumulated depreciation and impairment				
As of Jan 1, 2021	**586**	**8,255**	**4,642**	**13,483**
Depreciation	315	3,268	6,407	9,990
Disposal*	—	(157)	(217)	(374)
Transfers from right-of-use assets***	—	493	—	493
As of Dec 31, 2021	**901**	**11,859**	**10,832**	**23,592**
Depreciation	241	1,568	2,166	3,975
Disposal**	—	(67)	(2,918)	(2,985)
Currency translation differences	2	12	26	40
Transfers from right-of-use assets***	—	1,729	—	1,729
As of Dec 31, 2022	**1,144**	**15,101**	**10,106**	**26,351**
Depreciation	235	1,865	778	2,878
Disposal	—	148	(536)	(388)
Currency translation differences	—	(5)	(7)	(12)
Transfers from right-of-use assets***	—	1,996	—	1,996
As of Dec 31, 2023	**1,379**	**19,105**	**10,341**	**30,825**
Carrying amounts				
As of Dec 31, 2021	**2,463**	**3,195**	**3,806**	**9,464**
As of Dec 31, 2022	**2,223**	**2,550**	**2,035**	**6,808**
As of Dec 31, 2023	**1,986**	**1,890**	**1,767**	**5,643**

* The disposal relates to the sale of a CentoTruck as part of a contract with a COVID-19 customer.
** The disposal relates to various obsolete plant and machinery equipment mainly in relation to the ramp down of the COVID-19 business segment.
*** The transfers from right-of-use assets represents assets purchased at the end of the lease.

At the end of the third quarter of 2021, management updated its long-term outlook for the COVID-19 testing business, which led to management's decision to discontinue the COVID-19 business (see Note 9). As part of the wind down, estimated useful lives of all

COVID-19 related tangible assets were accelerated. As of March 31, 2022, there were no operations and no active leases on any of the testing sites. In addition, all COVID-19 related tangible assets have been fully depreciated.

14 Right-of-use assets

The Group has lease contracts for land and buildings and offices in Germany and the United States, as well as various items of plant, machinery, motor vehicles and other equipment used in its operations. Leases for land and buildings is related to the sale and leaseback transaction of the Rostock headquarters building and the office in Berlin, both with a lease term of 12 years. Leases of plant and machinery and other equipment generally have lease terms between 2 and 4 years, while motor vehicles generally have lease terms of 3 years. The Group's obligations under its leases are secured by the lessor's title to the leased assets. Generally, the Group is restricted from subleasing the leased assets. In addition, a bank guarantee of EUR 3,257k (which is secured by cash deposit of EUR 3,257k) is required to be maintained for the leases of Rostock headquarters building and Berlin offices until the expiry or termination of the leases. Leases of certain plant and machineries were also secured with rental deposits of EUR 51k.

The lease contract of Rostock headquarters building includes extension options. These options are negotiated by management to provide flexibility in managing the leased-asset portfolio and align with the Group's business needs. The lease of Rostock headquarters building allows the Group to extend the rental contract twice, each for a period of 6 years, after the expiration of agreement in September 2031 with rental payments of approximately EUR 1.5 million per annum. Such extension option is not included in the right-of-use assets and lease liabilities, as it is not reasonably certain that such extension option will be exercised.

The Group also has certain leases of motor vehicles and premises with lease terms of 12 months or less and leases of office equipment with low value. The Group applies the 'short-term lease' and 'lease of low-value assets' recognition exemptions for these leases.

Set out below are the carrying amounts of right-of-use assets and movements during the period:

In EUR k	Buildings*	Offices	Plant and equipment	Other equipment	Motor Vehicles	Total
As of Jan 1, 2021	**12,005**	**4,176**	**4,587**	**1,315**	**37**	**22,120**
Additions	—	133	1,121	179	19	1,452
Transfers to property, plant & equipment**	—	—	(672)	—	—	(672)
Depreciation expenses	(1,121)	(970)	(1,745)	(138)	(22)	(3,996)
As of December 31, 2021	**10,884**	**3,339**	**3,291**	**1,356**	**34**	**18,904**
Additions	—	112	95	—	21	228
Transfers to property, plant & equipment**	—	—	(772)	(127)	—	(899)
Depreciation expenses	(1,124)	(529)	(1,081)	(127)	(22)	(2,882)
As of December 31, 2022	**9,760**	**2,922**	**1,533**	**1,102**	**33**	**15,351**
Additions	866	13	975	—	—	1,854
Transfers to property, plant & equipment**	—	—	(1,627)	—	—	(1,627)
Depreciation expenses	(1,133)	(364)	(422)	—	(24)	(1,943)
As of December 31, 2023	**9,493**	**2,571**	**459**	**1,102**	**9**	**13,635**

* As the lease of land and buildings are made through one contract, all the related right-of-use assets are allocated to Buildings.
** Transfers of leased assets to PP&E (Note 13) represents purchased assets at the end of lease term.

Set out below are the carrying amounts of lease liabilities and the movements during the period:

in EUR k	2023	2022	2021
As of January 1	**15,436**	**18,724**	**21,205**
Additions	1,657	204	1,452
Interest expenses	579	637	584
Disposals	—	—	(273)
Payments	(3,095)	(4,129)	(4,244)
As of December 31	**14,577**	**15,436**	**18,724**
Current	**2,178**	**2,311**	**3,330**
Non-current	**12,399**	**13,125**	**15,394**

The maturity analysis of lease liabilities is disclosed in Note 23.

The following are the amounts recognized in profit or loss:

in EUR k	2023	2022	2021
Depreciation expense of right-of-use assets	1,943	2,882	3,996
Interest expenses on lease liabilities	579	637	584
Rent expenses—short-term leases	175	770	7,175
Rent expense—leases of low-value assets	21	27	48
Total amounts recognized in profit or loss	**2,718**	**4,316**	**11,803**

The Group had total cash outflows for leases of EUR 3,095k in 2023 (2022: EUR 5,111k; 2021: EUR 11,467k). The future cash outflows relating to non-cancellable short-term leases and leases of low-value assets, are disclosed in Note 26. The future cash outflow related to residual value guarantees are disclosed in Note 23.

15. Investment in Joint Venture

On June 26, 2023, the Company entered into a joint venture agreement (the "Joint Venture Agreement") with Pharmaceutical Investment Company ("PIC" or "Lifera"), a closed joint stock company incorporated pursuant to the laws of Saudi Arabia and a wholly-owned subsidiary of the Public Investment Fund (PIF) based in Riyadh, to form a joint venture under the laws of Saudi Arabia. According to the joint venture agreement, the founding capital is to be provided 80% (SAR 80,000,000; EUR 19,892k) by PIC and 20% (SAR 20,000,000; EUR 4,973k) by the Company and will be used to finance business operations, including the establishment of a laboratory competence center in the Kingdom of Saudi Arabia ("KSA"). Pursuant to the Joint Venture Agreement, and subject to the terms and conditions contained therein, the Company and PIC have established a limited liability company in Saudi Arabia, Genomics Innovations Company Limited, (the "JV") on November 19, 2023. The joint venture will be involved in providing state-of-the-art multiomic testing services to patients, health systems, biopharma clients, and research institutions in Saudi Arabia and countries of the Gulf Cooperation Council (GCC).

The Group's interest in the JV is accounted for using the equity method in the consolidated financial statements. Management obtained financial information from the JV as a reporting package based in local GAAP and analyzed the necessary adjustment to convert the information into IFRS based financial statements. Summarized financial information of the joint venture, and reconciliation with the carrying amount of the investment in the consolidated financial statements are set out below:

Summary financial information of the JV:

Dec 31, 2023	in SAR k	in EUR k
Non- current assets	**40,000**	**9,946**
Current assets	**60,000**	**14,919**
Cash and Cash equivalents	60,000	14,919
	100,000	**24,865**
Equity	**93,818**	**23,328**
Non- current liabilities	—	—
Current liabilities	**6,182**	**1,537**
	100,000	**24,865**

Dec 31, 2023	in SAR k	in EUR k
Operating loss	**(6,000)**	**(1,465)**
Loss before tax	**(6,000)**	**(1,465)**
Loss for the year	**(6,182)**	**(1,509)**
Total comprehensive loss for the year	**(6,182)**	**(1,509)**

The details of the movement in investments accounted for by the equity method in 2023 was as follows:

in EUR k	% Holding	Investments accounted for by the equity method Dec 31, 2023	Share of (loss) income of investments accounted for by the Equity method 2023
Investment in Joint Venture	20%	2,784	(302)
Total		2,784	(302)

in EUR k	2023
As of January 1	—
Additions	4,973
Disposals	—
Translation differences and other comprehensive income (loss)	—
Loss	(302)
Dividends	—
Transfers and others	(1,887)
As of December 31	**2,784**

Following this, to finance the contribution, the Company entered into a convertible loan agreement that was signed on October 26, 2023. Cash of USD 30 million (EUR 28.3 million) was received from PIC on October 30, 2023 (Note 21.1).

Pursuant to the Joint Venture establishment mentioned above, the Company and PIC have agreed to a Technology Transfer and Intellectual Property License Agreement, a Consultancy Agreement and a Laboratory Services Agreement.

As mentioned in note 8.1, as a result from the transfer of technology and the license of the company's Intellectual Property ("IP"), which amounted to a gain of EUR 9,436k, the Company recognized the 20% as a deduction of its investment in the joint venture according to IAS 28.28, amounted to EUR 1,887k.

16 Inventories

in EUR k	Dec 31, 2023	Dec 31, 2022
Raw materials, consumables and supplies	2,268	1,801
Finished goods and merchandise	195	18
Inventories	**2,463**	**1,819**

In the year ended December 31, 2023, raw materials, consumables, and changes in inventories of finished goods recorded as expenses under "cost of sales" came to EUR 12,790k (2022: EUR 19,525k; 2021: EUR 9,467k). During 2023, the Company recognized an expense of EUR 226k (2022: nil) in respect of write downs of inventory.

17 Trade and other receivables and other assets

in EUR k	Dec 31, 2023	Dec 31, 2022
Non- current		
Other assets—Rental deposits	3,317	2,819
Other assets—Others	108	92
	3,425	**2,911**
Current		
Trade receivables	16,804	13,637
Contract assets	2,611	2,911
Other assets	3,042	5,514
	22,457	**22,062**
Total non-current and current trade and other receivables and other assets	**25,882**	**24,973**

Other non-current assets

The non-current portion of other assets mainly include cash deposit of EUR 3,000k, used to secure a bank guarantee of EUR 3,257k, relating to the leases of Rostock headquarters building, cash deposits of EUR 257k, used to secure a bank guarantee of EUR 257k, relating to the leases of Berlin office and EUR 60k for the leases of certain plant and machineries. It also includes EUR 108k for the cash deposit for the Central Procurement & Supplies Unit of Malta.

Trade receivables

Trade receivables are non-interest bearing and are generally due in 30 to 90 days. In general, portfolio-based expected credit loss allowances are recognized on trade receivables and contract assets (see note 23.2).

Other current assets

Other current assets include VAT receivables of EUR 445k (2022: EUR 2,039k; 2021: EUR 253k), prepaid expenses of EUR 1,595k (2022: EUR 2,620k; 2021: EUR 3,346k), receivables related to exercised share-based payment grants of EUR 69k (2022: EUR 74k; 2021: 116k). Receivables related to COVID-19 bank or credit card transactions are EUR nil in 2023 (2022: EUR nil; 2021: 612k), as well as receivables from grants of EUR 219k (2022: EUR nil; 2021:nil).

18 Cash and short-term deposits

As of December 31, 2023, cash and cash equivalents amounted to EUR 19,099k (2022: EUR 35,951k) from which the Group has pledged its short-term deposits with carrying amount of EUR 425k (2022: EUR 443k) and EUR nil (2022: EUR 2,500k) respectively, to fulfil collateral requirements in respect of existing deposit for leasing contract and overdraft facility up to EUR 500k. In addition, the Group has pledged its short-term deposits of EUR 500k (2022: EUR 1,000k) related to one other overdraft facility.

Equity and liabilities

19 Equity

Issued capital and capital reserve

in thousands of shares	Dec 31, 2023	Dec 31, 2022	Dec 31, 2021
Common shares as of Jan 1, fully paid	27,596	22,568	22,118
Issued shares	—	4,998	—
Exercise of options	1,404	30	450
Common shares issued as of Dec 31, fully paid	29,000	27,596	22,568

in thousands of shares	Dec 31, 2023	Dec 31, 2022	Dec 31, 2021
Authorized common shares of EUR 0.12 each	79,000	79,000	79,000

Common Shares

On January 31, 2022, pursuant to a securities purchase agreement signed with certain investors, the company received EUR 15.0 million as consideration for the issuance of an aggregate of 4,479,088 common shares at a price per share of USD 3.73 (EUR 3.35).

As of December 31, 2023, 29,000,137 common shares of Centogene N.V. with a nominal value of EUR 0.12 were issued and fully paid up (2022: 27,595,835; 2021: 22,567,971). As of December 31, 2023, the authorized, but unissued common share capital amounted to EUR 6,000k (2022: EUR 6,713k; 2021: EUR 6,772k).

The holders of common shares are entitled to the Company's approved dividends and other distributions as may be declared from time to time by the Company, and is entitled to vote per share on all matters to be voted at the Company's annual general meetings.

Capital reserve

As of December 31, 2023, capital reserve included a share premium of EUR 120,847k (2022: EUR 121,018k; 2021: EUR 106,665k), being amounts paid in by shareholders at the issuance of shares in excess of the par value of the shares issued, net of any transaction costs incurred for the share issuance.

On January 31, 2022, pursuant to the securities purchase agreement and a warrant agreement, each signed with certain investors, the Group received EUR 15.0 million in exchange for the issuance of an aggregate of 4,479,088 common shares at a price per share of USD 3.73 (EUR 3.35) and warrants initially exercisable for the purchase of up to an aggregate of 1,343,727 additional common shares at an initial exercise price per common share of USD 7.72. The warrants are exercisable immediately as of the date of issuance and will expire on December 31, 2026. The fair value of warrants issued as of January 31, 2022, was USD 3.2 million (EUR 2.8 million). The amount recognized in capital reserve for the issuance of shares considering EUR 110k of transaction costs, was EUR 14.3 million. EUR 2.8 million for the issuance of warrants was also charged against capital reserve reducing the EUR 14.3 million from the issuance of shares to EUR 11.5 million.

The capital reserve consists of the share premium account and amounts recorded in respect of share-based payments. For additional information on the share-based payments, please refer to note 22.

20 Capital management

The Group's objectives when managing capital are to safeguard the Company's ability to continue as a going concern and finance all necessary sustainable developments, so that it can continue to provide returns for shareholders and benefits for other stakeholders. In particular, care is taken and an optimal capital structure is strived to reduce the cost of capital. With the IPO in

November 2019, follow-on public offering of July 2020, shares and warrant issuance and aggregate debt financing in February 2022, and the closing of the Convertible Loan Agreement on October 2023, the Group is focused on achieving a healthy capital base to increase the confidence of investors and the capital market.

The Group manages its capital structure and makes adjustments in light of changes in economic conditions and the risk characteristics of its activities. To maintain or adjust the capital structure, the Group may adjust the return to shareholders, issue new shares, or pay additional interests to reduce debt.

The Company monitors covenants stated in its loan facility agreements to be in compliance with to take early mitigating actions in case the Company breaches any of these.

See Note 2.2 to the Consolidated Financial Statements for further details over the going concern.

21 Financial liabilities

21.1 Interest-bearing loans

in EUR k	Dec 31, 2023	Dec 31, 2022
Non- current liabilities		
Non- current portion of secured bank loans	39,880	40,051
Total non- current loans	**39,880**	**40,051**
Lease liabilities	12,399	13,125
Total non- current liabilities	**52,279**	**53,176**
Current liabilities		
Current portion of secured bank loans	—	1,261
Convertible loan	25,882	—
Bank overdrafts	—	3,374
Total current loans	**25,882**	**4,635**
Current portion of lease liabilities	2,178	2,311
Total current liabilities	**28,060**	**6,946**
Total non- current and current liabilities	**80,339**	**60,122**

As of December 2023, short-term cash deposits of EUR 425k (2022: EUR 443k) were used to secure the remaining lease outstanding balance.

The following table is based on the original terms and conditions:

Conditions and statement of liabilities

The outstanding interest-bearing loans as of December 31, 2023 and 2022 have the following conditions:

				Dec 31, 2023			Dec 31, 2022		
in EUR k	**Currency**	**Nominal interest rate**	**Maturity**	**Nominal amount**	**Fair Value**	**Carrying amount**	**Nominal amount**	**Fair Value**	**Carrying amount**
Convertible Loan	USD	12.80%	2024	27,127	25,882	25,882	—	—	—
Secured bank loan	USD	8.15%	2028	40,691	39,880	39,880	39,015	41,312	41,312
Bank overdrafts	EUR	0.00%	Rollover	—	—	—	499	499	499
Bank overdrafts	EUR	0.00%	Rollover	—	—	—	2,376	2,376	2,376
Bank overdrafts	EUR	0.00%	Rollover	—	—	—	499	499	499
Lease liabilities*	EUR	2.1%-7.55%*	2017-31	14,577	14,577	14,577	15,436	15,436	15,436
Total interest- bearing financial liabilities				**82,395**	**80,339**	**80,339**	**57,825**	**60,122**	**60,122**

* represents the incremental borrowing rate of the Group at the commencement of the leases

Secured bank loan

On January 31, 2022, the Company, Centogene GmbH, CentoSafe B.V. and Centogene US, LLC (together, the "Borrowers"), entered into a debt financing agreement in the total amount of up to USD 45.0 million (EUR 40.2 million). Under the terms of the Loan Facility, the Company drew down USD 25.0 million (EUR 22.3 million) on January 31, 2022, and a second tranche of USD 20.0 million (EUR 18.6 million) upon achievement prior to July 31, 2023, of product revenue from our diagnostics and pharmaceutical segments of at least USD 50.0 million (EUR 44.3 million) calculated on a trailing twelve month basis as of the last day of any fiscal month. The Loan Facility also includes covenants such that the Group is required to maintain product revenue, calculated as of the last day of each fiscal quarter and on a trailing twelve-month basis as of such date, of at least EUR 30.0 million for any fiscal quarter prior to obtaining the second tranche and EUR 40.0 million for any fiscal quarter on or after obtaining the second tranche. Both tranches mature on January 29, 2027, with amortized repayments commencing March 1, 2025. The loans extended under the Loan Facility bear monthly interest payments at an interest rate of 7.93% per annum plus the 1-month CME Term SOFR reference rate as published by the CME Group Benchmark Administration Limited (the first tranche, "Tranche A", subject to a floor of 0.07% and the second tranche, "Tranche B", subject to a floor of 4.13%). As security for the Borrowers' obligations under the Loan Facility, the Borrowers granted the lenders thereunder a first priority security interest on all of each Borrower's assets.

The Loan and Security Agreement with Oxford Finance was amended on April 30, 2023 which introduced new requirements that the Group will prepay any outstanding loans under the Loan and Security Agreement in an amount of USD 5.0 million (plus fees, interest and expenses, in each case, pursuant to the terms of the Loan and Security Agreement) upon the first new business development or financing transaction the Group will enter and maintain at least EUR 9.1 million in unrestricted cash on deposit in collateral accounts subject to the Lender's perfected security interest granted under the Loan and Security Agreement. On October 26, 2023 a new amendment was signed. This third amendment modified the existing requirements whereby (i) a reduction in interest rate has been introduced, and (ii) maturity date has been extended. Additionally, the USD 5 million prepayment requirement has been removed and as well as the requirement to hold EUR 9.1 million in unrestricted cash on deposit.

The Company determined the impact of the new amendment changes and applied the guidance set out in IFRS 9 'Financial Instruments' and determined that there was a contract modification. The resulting analysis revealed that that there is no change in the principal amount, that there was a change in interest rate (from 7.93% down to 6.15% and the floor rate increased to 8.15% from 8.00%). Furthermore, there was a change in the payment terms extending the maturity date (by one year to January 29, 2028). Management analyzed this modification taking both qualitatively and quantitatively determining that this was not a substantial modification for the purposes of IFRS 9. The difference between the present value of the new liability and the carrying amount of the original liability is recognized as a gain of EUR 491k, adjusting the liability (as a catch-up adjustments). Transaction costs incurred in the modification are deducted from the liability and expensed during the new life of the agreement, amounting to EUR 645k. The effective interest rate used for the modified amortized cost calculation of Tranche A is 11.38% and for the Tranche B is 17.14%.

In 2022, the Loan Facility was initially recognized at fair value minus transaction costs and subsequently carried at amortized cost measured using the effective interest rate method. The transaction costs deducted from the fair value of the Loan Facility at initial recognition were EUR 1,403k. The effective interest rate used initially for amortized cost calculation of Tranche A is 11.36% and for the Tranche B is 17.11%.

Convertible Loan

On October 26, 2023, the Company (the ""Borrower"") and Pharmaceutical Investment Company, LLC (“PIC” or the "Lender"), entered into a debt financing agreement in the total amount of up to USD 30.0 million (EUR 28.3 million). Under the terms of the Convertible Loan Facility, the Company drew down USD 30.0 million (EUR 28.3 million) on October 26, 2023, in one tranche only, and the maturity date is April 26, 2024. The interest is accrued daily on the Principal Amount of the Loan at a rate per annum equal to 12.8%.

The Lender may, at its option, convert the Loan into Conversion Consideration. The Lender may convert the Loan in its entirety at any time after the date upon which the 30-day volume-weighted average price of the Common Shares has been at least the Conversion Price per Common Share for at least 20 Trading Days (whether or not consecutive) during a period of 30 consecutive Trading Days.

The type and amount of consideration (the “Conversion Consideration”) due in respect of the Principal Amount of the Loan to be converted will be a number of Common Shares equal to the quotient obtained by dividing (1) the Principal Amount of the Loan plus accrued and unpaid interest by (2) the Conversion Price of USD 2.2 then in effect on the Conversion Date (the first Business Day on which the requirements set forth in the Agreement to convert the Loan are satisfied) or Fundamental Change Conversion Date for such conversion (the date fixed for the conversion of the Loan pursuant to the occurrence of a Fundamental Change).

Fundamental Change is considered when the following occurred: the acquisition by any party (or parties acting in concert) of Common Shares representing more than fifty percent (50%) of the voting power of all of the Borrower’s Common Shares; the consummation of (i) any sale, lease or other transfer, in one transaction or a series of transactions, of all or substantially all of the assets of the Borrower and its Subsidiaries, taken as a whole, to any Person; or (ii) any transaction or series of related transactions (whether by means of merger, demerger, consolidation, share exchange, business combination, reclassification, recapitalization, acquisition, liquidation or otherwise), the result of which is the Borrower’s shareholders prior to such transaction or series of transactions cease to own more than fifty percent (50%) of all classes of common equity of the Borrower or its successor following any such transaction or series of transactions; or the Borrower’s shareholders approve any plan or proposal for the liquidation or dissolution of the Borrower), plus the Conversion Fee Shares (result of dividing USD 1,000,000 by the Conversion Price then in effect).

The initial number of Conversion Shares to be delivered upon conversion of the Loan is 15,000,000 (representing (i) a number of Common Shares of the Company equal to the quotient obtained by dividing (x) the Principal Amount of the Loan plus accrued and unpaid interest (which, in no event shall be less than USD 2,000,000) by (y) the Conversion Price plus (ii) the Conversion Fee Shares) provided.

Management assessed the accounting treatment of the Convertible Loan and analyzed the possibility of conversion at maturity date, determining the Loan should be accounted as a financial liability using the effective interest rate method as there are some circumstances in which the Company should repay the Loan in case of no conversion at maturity date. Management also considered the embedded rights that could only occur upon certain conditions being met, concluding that these were not bifurcated and had a value of zero. As of December 31, 2023, the Company has recognized the loan at amortized cost measured using the effective interest rate method. The transaction costs deducted at initial recognition were EUR 3,023k. The effective interest rate used for amortized cost calculation is 43.37%. In addition, as of May 12, 2024, the Company and “PIC” signed a new amendment to the Convertible Loan agreement in which the maturity date has been changed (See Note 29 for further details).

Bank overdrafts

The bank overdrafts of EUR nil as of December 31, 2023 (2022: EUR 2,376k) were secured by short-term deposits with a carrying amount of EUR 500k (2022: EUR 2,500k) (see Note 18). The other bank overdrafts of EUR nil (2022: EUR 998k) were secured over two short-term deposits with a carrying amount of EUR 500k in 2022 (see Note 18).

21.2 Trade payables and other liabilities

in EUR k	Dec 31, 2023	Dec 31, 2022
Trade payables	5,628	6,317
Government grants (deferred income)	6,685	7,950
Contract liabilities	694	651
Warrant liability	394	260
Derivative liabilities	242	376
Others	7,961	9,601
Trade payables and other liabilities	**21,604**	**25,155**
Non- current	**6,385**	**7,726**
Current	**15,219**	**17,429**

Government grants mainly include investment-related government grants. These were received for the purchase of certain items of property, plant and equipment for the research and development facilities in Mecklenburg-Western Pomerania, including the Rostock facility. The grants were issued in the form of investment subsidies as part of the joint federal and state program, “Verbesserung der regionalen Wirtschaftsstruktur” (improvement of the regional economic structure) in connection with funds from the European Regional Development Fund. No additional grants received during the year ended December 31, 2023 (2022: EUR 506k; 2021: EUR 168k).

Contract liabilities mainly contain the deferred revenues recognized for advance payments received by the customers; in case the revenue is recognized over time. The increase of the period is mainly due to the new collaborations entered during the current year partially offset by the release of certain amounts related to advance payments made in prior years, netting to an increase of EUR 43k (2022: EUR 1,915k decrease; 2021: EUR 3,201k decrease), for the revenues recognized in 2023 based on the satisfaction of the related performance obligations.

On January 31, 2022, pursuant to a securities purchase agreement and a warrant agreement, each signed with certain investors, the Group received EUR 15.0 million in exchange for the issuance of an aggregate of 4,479,088 common shares at a price per share of USD 3.73 (EUR 3.35) and warrants initially exercisable for the purchase of up to an aggregate of 1,343,727 additional common shares at an initial exercise price per common share of USD 7.72. The warrants are exercisable immediately as of the date of issuance and will expire on December 31, 2026. Based on the fair value per share at the issuance date, the Group recognized the warrants as liabilities in the amount of USD 3.2 million (EUR 2.8 million). The fair value of warrants increased from EUR 0.19 per warrant as of December 31, 2022, to EUR 0.29 per warrant as of December 31, 2023. The result is an increase in fair value of warrant liabilities of EUR 159k for the period ended December 31, 2023.

The fair value of the warrants was estimated at the date of issuance date using the Black-Scholes-Merton option pricing model. The key assumptions used to derive the warrants value are set out below:

	Dec 31, 2023	Dec 31, 2022
Exercise price (USD)	7.72	7.72
Share price (USD)	1.20	0.93
Volatility (%)	100.00	85.00
Risk-free interest rate (%)	4.12	4.15
Dividend yield (%)	nil	nil
Time to maturity	3.00	4.00

Other liabilities include an accrual for outstanding invoices of EUR 1,161k (2022: EUR 1,074k; 2021: EUR 4,978k), personnel-related liabilities for vacation and bonuses totaling EUR 3,559k (2022: EUR 3,717k; 2021: EUR 4,812k), a VAT payable of EUR nil (2022: EUR nil; 2021: EUR 905k), an accrual for closings and audit of financial statements of EUR 1,422k (2022: EUR 1,648k; 2021: EUR 932k) as well as liabilities for wage and church tax of EUR 328k (2022: EUR 342k; 2021: EUR 1,040k).

22 Share-based payments

As of December 31, 2023 and 2022, the Group had the following share-based payment arrangements.

(i) 2019 Equity Incentive Plan (2019 Plan)

The Company established a long-term incentive plan (the "2019 Plan") in 2019. The 2019 Plan governs issuances of equity and equity-based incentive awards from and after the consummation of the IPO. Awards under the 2019 Plan may be granted to the employees, the members of management board and supervisory board, consultants or other advisors. As of January 1, 2023 the maximum number of common shares underlying awards that may be granted pursuant to the 2019 Plan (other than replacement awards) will not exceed 25% of the Company's issued share capital. Such maximum number will be increased on January 1 of each calendar year, by an additional number of common shares equal to 3% of the Company's issued share capital on such date (or a lower number of common shares as determined by the management board or supervisory board, where appropriate on the basis of a recommendation of the compensation committee (as the case may be, as prescribed by the 2019 Plan and, collectively, the "Committee")).

In the event of a change in control of the Company (as defined in the 2019 Plan), outstanding awards that will be substituted or exchanged for equivalent replacement awards, in connection with the change in control will be cancelled. Outstanding rewards that are not substituted or exchanged for equivalent replacement awards, in connection with the change in control will immediately vest and settle in full, unless otherwise decided by the Committee.

In November 2022, the Company amended the 2019 plan to include stock grants (SGAs) and restricted stock units (RSUs) and to modify the settlement of the awards. Accordingly, the awards will be delivered as promptly as reasonably practicable following the exercise or settlement of the relevant award, but in no event later than 30 days following such exercise or settlement.

The grants disclosed in the following paragraphs were granted under the 2019 Plan.

(ii) ESOP/ VSOP 2017

During 2019, 805,308 new share options were granted pursuant to the Centogene N.V. 2019 Plan, replacing previously established virtual share option program in 2017 ("ESOP 2017"), with each option representing the right to acquire one common share of Centogene N.V., with an exercise price equal to the nominal value of a share of Centogene N.V., which is EUR 0.12. The options were considered vested upon the completion of the IPO, but were not exercisable in the first 180 days after the IPO (lock-up period).

During 2023, 68,201 options were exercised (2022: 29,509; 2021: 191,565). The weighted average share price at the date of exercise was USD 1.01 (2022: USD 1.25; 2021: USD 9.76).

As of December 31, 2023, there are 259,730 outstanding options under this plan.

The contractual term of the share options as of December 31, 2023 is six years.

The fair values were estimated at the date of grant using the Black-Scholes option pricing model, taking into account the terms and conditions under which the share options were granted. The model takes into account historical and expected dividends, and the share price volatility of other public companies in the relevant industries to predict the share performance. There are no cash settlement alternatives for either the option holders or the Company.

(iii) Equity share option 2019 (ESOP 2019) to Flemming Ornskov

All 300,000 restricted stock units granted to Flemming Ornskov under ESOP 2019 were exercised during 2022 in exchange for share options. The WAEP at the date of exercise in 2022 was USD 1.0.

(iv) 2021 grants to management board and employees

During the year ended December 31, 2021, 167,326 RSUs and 15,000 Options were granted under 2019 Plan.

RSUs do not have any market or performance based vesting criteria and vest in three or four equal annual tranches starting from their grant dates. Each RSU represents a right to receive a payment in cash or shares equal to the value of the RSU on the settlement date. The Company has a choice to settle either in cash, in shares or a combination thereof. In line with the Company´s policy, both types of awards are to be settled in shares.

Options vest in three equal tranches over a three-year period starting on January 1, 2022, and are subject to market based vesting conditions. These options will vest only if the 20-trading day volume-weighted average stock price of the Company's shares preceding the vesting date of each tranche exceeds the exercise price of USD 12.52. Therefore, expenses would not be reversed, if the tranches do not ultimately vest. All grants expire on the 10th anniversary of grant date.

During 2023, additional 15,734 RSUs have been exercised. The weighted average share price at the date of exercise was USD 1.15. As of December 31, 2023, there are 17,676 outstanding RSUs and 15,152 options under this plan.

(v) 2022 grants to employees

During the year ended December 31, 2022, 425,093 Stock Grants Awards ("SGAs") were granted under 2019 Plan, to the employees.

SGAs do not have any market or performance based vesting criteria and vest in three or four equal annual tranches starting from their grant dates. Each SGA represents a right to receive a payment in cash or shares equal to the value of the SGA on the settlement date. The Company has a choice to settle either in cash, in shares or a combination thereof. In line with this policy, both types of awards are to be settled in shares.

As of December 31, 2023, there are 209,017 outstanding SGAs under this plan.

(vi) 2022 grants to CEO and CFO

On February 1, 2022, Kim Stratton (the "CEO") was awarded 174,394 initial performance RSUs subject to time-vesting and performance-vesting ("Performance-vested RSUs"), 166,667 initial time-vested RSUs subject to only time-vesting ("Time-vested RSUs"), and a number of RSUs equal to CHF 200,000 divided by the VWAP calculated as of the date of grant and 44,444 annual RSUs (together, "Annual RSUs"). All RSUs have a maturity of 10 years, are settled with ordinary shares and have no exercise price. In case of a termination of the service agreement by the CEO, all unvested RSUs will be forfeited to the extent they have remained unvested following the expiration of a 12-month period after termination. On May 27, 2022, Miguel Coego Ríos, (the "CFO") was awarded 58,132 initial Performance-vested RSUs and 55,556 initial Time-vested RSUs. All RSUs have a maturity of 10 years, are settled with ordinary shares and have no exercise price.

On June 12, 2023, the Company, the CEO and the CFO agreed upon certain amendments to the RSU agreements ("Amendment Agreement"). The Initial RSUs granted to the CEO and CFO in 2022 were replaced and additional RSUs were awarded, so that a total of 1,052,227 new RSUs were awarded to the CEO and a total of 443,628 new RSUs were awarded to the CFO. The New RSUs are only subject to time-vesting.

The New RSUs will vest over three years in four equal installments following the June 12, 2023 for the CEO and after June 12, 2023 for the CFO. The first installment of the New RSUs is vested upon the execution of the Amendment Agreement. If New RSUs are exercised before December 31, 2025, each exercised RSU is limited to an amount of USD 7.

Furthermore, under the previous award agreement the CEO and CFO were entitled to receive Annual RSUs and M&A RSUs, in the event of a Change of Control ("CoC"). As part of the amendment, the Company, the CEO and the CFO agreed that the Annual RSUs and M&A RSUs are cancelled. Instead, both parties agreed that in case of the occurrence of a Change of Control ("CoC"), depending on the CoC-event (e.g., Sale, IPO), all awarded New RSUs will immediately vest such that a portion of 50% - 100% shall be immediately fully vested, if the service agreement is not terminated prior the CoC event. Any remaining unvested New RSUs will thereafter continue to vest in accordance with the Amendment Agreement. However, as those vesting conditions are only applicable if there is an occurrence of a change of control, which is not deemed probable by management in the foreseeable future, the Group did not account according to those conditions.

The replacement of the RSUs is accounted for as a modification under IFRS 2. The Initial RSUs are modified in a way that is not beneficial to the CEO, so, the incremental fair value of the modified Initial RSUs at the date of the modification was determined to be USD nil, so that the expense for the Initial RSUs will continue to be recognized as if the terms had not been modified. However, the Initial RSUs are modified in a way that is beneficial to CFO, so, the incremental fair value of the modified Initial RSUs at the date of the modification was determined to be USD 20k that was recognized as an expense.

In addition to the above-described changes, the Company granted a Capital Raise Bonus to the CEO and CFO. The CEO and the CFO are entitled to a one-time cash bonus in an amount of USD 375k and USD 150k, respectively, if the Capital Raise is at least EUR 10,000k and the services agreement has not terminated prior or upon the execution of a binding agreement. The Bonus can be increased with an amount equal to 1.50% of such excess amount, provided further that the Capital Raise Bonus shall never exceed USD 300k (gross) for the CFO and USD 750k (gross) for the CEO, if the Capital Raise exceeds EUR 10,000k. The Capital Raise Bonus can be increased up to an amount of USD 300k, if the Capital Raise exceeds EUR 10,000k.

On June 26, 2023, the Company entered into a Joint Venture Agreement with Pharmaceutical Investment Company ("PIC"), and signed a Convertible Loan Agreement on October 26, 2023. According to those facts and circumstances the scenario of a Capital Raise as defined in the Amendment Agreement happened, therefore, the Company awarded a Capital Raise Bonus in the amount of EUR 997k. As of December 31, 2023, this amount has been fully paid and considered as transaction cost that was deducted from the convertible loan signed on October 26, 2023 (see Note 21).

(vii) 2023 grants to management board and employees

In addition to the new RSUs to the CEO and CFO as noted in 22 (vi) above, during the year ended December 31, 2023, 908,192 SGAs were granted under this Plan. SGAs do not have any market or performance based vesting criteria and vest in three or four equal annual tranches starting from their grant dates. Each SGA represents a right to receive a payment in shares equal to the value of the SGA on the settlement date. All grants expire on the 10th anniversary of the grant date.

	Number of awards
Outstanding as of January 1, 2023	-
Granted during the year 2023	908,192
Forfeited during the year 2023	(139,790)
Exercised during the year 2023	-
Outstanding as of December 31, 2023	768,402
Vested as of December 31, 2023	-
Exercisable as of December 31, 2023	-

During 2023, no SGAs have been exercised.

(viii) Other grants to management board, employees or other parties

During the year ended December 31, 2023, 224,414 SGAs were granted to employees. SGAs do not have any market or performance based vesting criteria and vest in one tranche starting from their grant dates. Each SGA represents a right to receive a payment in shares equal to the value of the SGA on the settlement date.

From the amount described above, 8,392 SGAs have been forfeited and 144,184 SGAs have been exercised during 2023. The weighted average share price at the date of exercise was USD 1.14. As of December 31, 2023, there are 68,838 outstanding SGAs which will vest during the first quarter 2024.

In addition, as a consequence of the completion of the Convertible Loan Agreement (Note 23), the Company granted 400,000 SGAs to a third party involved in the transaction. As mentioned in Note 7.1, from the total amount related to this grant, EUR 202k was capitalized into convertible loan agreement as it was considered as a transaction cost. These SGAs vested in one tranche upon signing the final agreement and were exercised on December 21, 2023 at USD 1.14.

The expense recognized for the above share-based payment transactions during the year is shown in the following table:

in EUR k	2023	2022	2021
Expenses arising from equity-settled share-based payment transactions			
- ESOP 2019, including replacement by RSUs	653	2,376	7,000
- Grants to management board and employees	2,205	852	985
- Supervisory board grant	—	—	50
- Grants to other parties	258	—	—
- Reversals	(187)	(3,244)	—
Total expenses arising from share- based payment transactions	**2,929**	**(16)**	**8,035**

23 Financial instruments-fair values and risk management

23.1 Classifications and fair values

The fair values of the Company's cash and cash equivalents, trade receivables and contract assets and trade and other payables approximate their carrying values because of the short-term nature of these instruments.

Except for the warrant liability, the prepayment option and interest rate floor derivatives, the Group does not carry any financial instruments at fair value through profit and loss but at amortized cost.

IFRS 13 establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value as follows:

- Level 1 - quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2 - inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and
- Level 3 - inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The following table shows the fair values of financial instruments as of December 31, 2023, including their level in the fair value hierarchy. It does not include fair value information for financial assets and financial liabilities not measured at fair value if the carrying amount is a reasonable approximation of fair value:

in EUR k	Level 1	Level 2	Level 3	Carrying value	Measurement Category
Non-current loans	—	(39,880)	—	(39,880)	Amortized Cost
Current loans	—	(25,882)	—	(25,882)	Amortized Cost
Warrants liability	—	—	(394)	(394)	FVTPL
Prepayment option derivative asset	—	—	799	799	FVTPL
Interest rate floor derivative liability	—	—	(242)	(242)	FVTPL

As of December 31, 2023, carrying amount of all financial assets or financial liabilities approximated their fair value.

Net gain recognized in the consolidated statements of comprehensive loss, within changes in fair value of warrants, from the warrant liability fair value measurement differences was EUR 159k for year ended December 31, 2023. The net gain or loss recognized in the consolidated statements of comprehensive loss related to the fair value of the prepayment option and interest rate floor derivatives was, respectively, EUR 134k and EUR 288k for year ended December 31, 2023 (December 31, 2022: EUR 510k and a loss EUR (376)k respectively) (see Note 8.3).

The valuation techniques used in measuring level 2 and 3 fair value for financial instruments in the consolidated statements of financial position, as well as the significant unobservable inputs used, were as follows:

- The fair value of the warrant liabilities, recognized as non-current financial liability at FVTPL, was calculated by applying a Black-Scholes-Merton option pricing model. This model uses the Centogene's share price and the share price volatility as material input factors. The volatility is considered as material unobservable input factor (Level 3).
- The initial measurement of the fair value of the loan is calculated as being the amount funded less the Fair Value of bifurcated embedded derivatives at entry. The subsequent measurement is determined using a calibrated Income Approach. Cashflows at entry are forecast based on the contractual terms and Interest Rate forward curves sourced from Bloomberg. The internal rate of return ("IRR") is calculated such that the Present Value of the forecast cashflows is equal to the initial measurement amount. This is categorized as Level 2.
- The bifurcated embedded prepayment option and floor are measured initially and subsequently using a hybrid valuation model applying the backward Monte Carlo method, selected to account for the variable strike and American style exercise features. The hybrid valuation model incorporates two risk factors, describing the behavior of interest rates and the company's credit spread respectively. Interest rates are modelled using a one factor Hull & White process, with the drift, mean reversion and volatility parameters calibrated to observed quotes for interest rate swaps and interest rate caps. Credit spreads are modelled using a lognormal process, with credit spread volatility estimated from the historical volatility of CDS spreads of a set of comparable companies and initial credit spread estimated by calibration at the loan's agreement date, with adjustments applied based on changes in the Leveraged Loan Index spread for B- companies. Discounting is at the benchmark risk-free rate, with the possibility of default incorporated via a hazard rate associated with the credit spread. This is categorized as Level 3 due to the following unobservable inputs: (i) credit spread; (ii) credit spread volatility.

The table below summarizes the profit or loss impact on the fair values of Level 3 instruments by changing the significant unobservable input factors.

		2023	
in EUR k	**Shift**	**increase**	**decrease**
Option (yield) - Credit Spread	+/- 10%	(144)	186
Option (yield) - Volatility	+/- 10%	94	(97)
Option (Floor) - Credit Spread	+/- 10%	6	(6)
Option (Floor) - Volatility	+/- 10%	—	—
Warrant - Volatility	+/- 5%	50	(50)

23.2 Financial risk management

The Group is exposed to the following risks from the use of financial instruments:

- *Credit risk*
- *Liquidity risk*
- *Currency risk*
- *Interest rate risk*

Credit risk

Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. The Group is exposed to credit risk from its operating activities (primarily trade receivables) and from its financing activities, including deposits with banks and financial institutions and foreign exchange transactions.

The carrying amount of the financial assets corresponds to the maximum default risk.

Trade receivables and contract assets

The Group utilizes a receivables management system that closely manages open items of major customers. The Group's customers in the Pharmaceutical segment are mainly pharmaceutical companies which are usually listed companies, or strongly financed by private equity funds. The Group's customers in the Diagnostic segment are mainly hospitals, labs and physicians, of which a large part are generating revenues. To avoid default, the Company may request prepayment for new business.

In addition to the macroeconomic situation generally, the development of international healthcare markets is a key economic factor in assessing the default risk related to trade receivables and contract assets. These markets are closely monitored by the Group.

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates are based on days past due for groupings of various customer segments with similar loss patterns (i.e. by customers from different segment; customers from different geographical region and customer type). The calculation reflects the probability weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions. The maximum exposure to credit risk at the reporting date is the carrying value of each class of financial assets disclosed in Note 17. The Group does not hold collateral as security and does not request letters of credit or other forms of credit insurance. The Group evaluates the concentration of risk with respect to trade receivables and contract assets and recorded credit losses reflecting the expected lifetime loss, based on different types of customers.

Considering the major exposure to the credit risk arising from the Diagnostic segment, the Group focused its impairment analysis on the trade receivables due from customers in the Diagnostic segment, in particular the MENA and Europe regions as they represent the majority of that segment's revenue. In addition to applying the provision matrix, the Group performed an individual customer analysis on major debtors, with reference to the past history (such as sales and collection in the previous periods) and the assessment of their current financial condition and other relevant factors and evaluated if additional specific impairment losses would be necessary.

Set out below is the information regarding the credit risk exposure of the Group's trade receivables and contract assets using a provision matrix.

	As of December 31, 2023				
in EUR k	**Total Gross amount**	**Not past due**	**Past due 1 - 30 days**	**Past due 31- 90 days**	**Past due by more than 90 days**
Middle East	18,820	8,352	1,143	1,961	7,364
Europe	3,490	3,103	152	195	40
Latin America	966	693	134	95	44
North America	801	696	105	—	—
Asia Pacific	240	161	35	43	1
Contract assets	181	181	—	—	—
Total	**24,498**	**13,186**	**1,569**	**2,294**	**7,449**
Expected credit loss rate	**20.8 %**	**1.0 %**	**5.5 %**	**10.0 %**	**62.3 %**
Expected credit loss	**5,083**	**131**	**86**	**229**	**4,637**

As of December 31, 2022

in EUR k	Total Gross amount	Not past due	Past due 1 - 30 days	Past due 31- 90 days	Past due by more than 90 days
Middle East	15,291	8,021	1,081	1,533	4,656
Europe	1,987	1,494	124	64	305
Latin America	825	742	62	12	9
North America	2,443	2,275	21	48	99
Asia Pacific	143	142	1	—	—
Contract assets	251	251	—	—	—
Total	**20,940**	**12,925**	**1,289**	**1,657**	**5,069**
Expected credit loss rate	**21.0 %**	**1.0 %**	**3.9 %**	**7.4 %**	**80.8 %**
Expected credit loss	**4,392**	**124**	**50**	**122**	**4,096**

As of December 31, 2021

in EUR k	Total Gross amount	Not past due	Past due 1 - 30 days	Past due 31- 90 days	Past due by more than 90 days
Middle East	13,967	3,999	1,013	2,056	6,899
Europe	11,486	10,771	351	259	105
Latin America	683	531	23	72	57
North America	2,513	2,513	—	—	—
Asia Pacific	130	115	9	6	—
Total	**28,779**	**17,929**	**1,396**	**2,393**	**7,061**
Expected credit loss rate	**19.0%**	**2.0%**	**7.7%**	**11.7%**	**64.1%**
Expected credit loss	**5,317**	**403**	**107**	**280**	**4,526**

Overdue trade receivables from the Middle East region mainly relate to major customers from the Diagnostic segment for which the Company and PIC signed a Receivable Transfer Agreement on April 23, 2024 (see Note 29). The trade receivables due from the top 10 diagnostics customers in the MENA region as of December 31, 2023 represent over 77% of total overdue balances for this region. These customers are mainly government hospitals administered by the Ministry of Health in the respective countries as well as distributors and, based on our past experience, these customers normally require a longer period to settle outstanding trade receivables. The average turnover period from these customers are 300 days. Therefore, a higher country specific loss rate has been used for the MENA region. To manage the credit risk and improve the cash collection, the Group increased the discount percentage to be paid to local agents for the receivables overdue since 2020, 2021 and 2023 from MENA region. Contract assets only contains pharma contracts and diagnostic contract assets are allocated to each region.

Set out below is the movement in the allowance for expected credit losses of trade receivables and contract assets:

in EUR k	2023	2022	2021
As of January 1	**4,392**	**5,317**	**4,693**
Provision/(reversal) for expected credit losses	761	(829)	827
Derecognition of trade receivables	(70)	(96)	(203)
As of December 31	**5,083**	**4,392**	**5,317**

The addition to the allowance for expected credit losses includes an amount of EUR 761k, which related to the increased amount of receivable past due by more than 90 days (2023: EUR 7,449k; 2022: EUR 5,069k). This amount was included in the impairment of financial assets in the profit and loss account. In 2023, trade receivables of EUR 70k (2022: EUR 96k; 2021: EUR 7k) were outstanding for more than 365 days and were derecognized.

Cash and cash equivalents

As of December 31, 2023, the Group held cash and cash equivalents of EUR 19,099k (2022: EUR 35,951k; 2021: EUR 17,818k). Therefore, this total also represents the maximum default risk with regard to these assets. The cash and cash equivalents are deposited principally with financial institutions with investment grade credit ratings.

Liquidity risk

The liquidity risk is the risk of the Group possibly not being in a position to meet its financial liabilities as contractually agreed by providing cash or other financial assets.

The Group's objective is to maintain a balance between continuity of funding and flexibility through the use of bank overdrafts and lease contracts.

Managing liquidity within the Group is intended to ensure that - as far as possible - sufficient cash and cash equivalents are always available to meet payment obligations when these falls due, in both normal and challenging conditions, without incurring unacceptable losses or damaging the Group’s reputation.

As mentioned in Note 2.2, Management prepared the budget based on several assumptions. On a weekly basis, Management monitors the financial positions to identify significant deviation and manage the cash available or the need of additional funding in case there is a shortfall of liquidity.

On January 31, 2022, pursuant to a securities purchase agreement signed with certain investors, we received EUR 15.0 million as consideration for the issuance by us of an aggregate of 4,479,088 common shares at a price per share of USD 3.73 (EUR 3.35). Also, on January 31, 2022, the Company, Centogene GmbH, CentoSafe B.V. and Centogene US, LLC (together, the “Borrowers”), entered into a debt financing agreement in the total amount of up to USD 45.0 million (EUR 40.2 million).

As mentioned in Note 20, Management also monitors the covenants compliance on a quarterly basis in order to implement immediate solutions in case the Company breaches certain covenants. As also mentioned in Note 29, the Company has received a notification from Nasdaq due to non-compliance with the requirements to be listed, which consequences a covenant breach under Oxford Loan Agreement. To this situation, Management implemented certain mitigating actions, including the obtention of a waiver from Oxford.

On October 2023, the Company and PIC entered into a convertible loan agreement in the total amount of up to USD 30 million (EUR 28,332k).

As mentioned in Note 21, Management identified the risk of repayment the Convertible Loan amount as maturity date was April 26, 2024. As disclosed in Note 29, as of May 12, 2024, the Company and “PIC” signed a new amendment to the Convertible Loan agreement in which the maturity date has been changed.

The Group strives to maintain cash and cash equivalents at a level above that of the expected cash outflows for financial liabilities (apart from trade payables) during the next 60 days. As of December 31, 2023, 35.8% of the Group’s interest-bearing liabilities mature in less than one year (2022: 11.6%; 2021: 31.7%) based on the carrying value of borrowings reflected in the financial statements.

In addition to the cash and cash equivalents available as of December 31, 2023, the Group also has access to other sources of funding. As of December 31, 2023, the Group has secured credit lines totaling EUR 3,500k. These bear interest of 4.31% - 4.75% (2022: EUR 3,500k; 4.31% - 4.75%; 2021: EUR 3,500k; 3.75% - 4.75%). EUR nil were utilized as of December 31, 2023 (2022: EUR 3,374k; 2021: EUR 3,310k).

The table below presents the remaining contractual terms of the financial liabilities on the reporting date, including estimated interest payments. The figures are undiscounted gross amounts, including estimated interest payments and interest on undrawn loan funds, but without showing the impact of offsetting.

		Contractually agreed cash flows				
Dec 31, 2023 in EUR k	**Carrying amount**	**Total**	**Less than 2 months**	**2 to 12 months**	**1 to 5 years**	**More than 5 years**
Bank overdrafts	—	—	—	—	—	—
Secured bank loans	39,880	57,598	778	3,969	52,851	—
Convertible Loan	25,882	28,936	—	28,936	—	—
Lease liabilities	14,577	16,577	446	2,228	8,452	5,451
Trade payables	5,628	5,628	5,628	—	—	—
	85,967	**108,739**	**6,852**	**35,133**	**61,303**	**5,451**

		Contractually agreed cash flows				
Dec 31, 2022 in EUR k	**Carrying amount**	**Total**	**Less than 2 months**	**2 to 12 months**	**1 to 5 years**	**More than 5 years**
Bank overdrafts	3,374	3,374	3,374	—	—	—
Secured bank loans	41,312	59,473	678	3,516	55,279	—
Lease liabilities	15,436	17,713	552	2,265	7,967	6,929
Trade payables	6,317	6,317	6,317	—	—	—
	66,439	**86,877**	**10,921**	**5,781**	**63,246**	**6,929**

		Contractually agreed cash flows				
Dec 31, 2021 in EUR k	**Carrying amount**	**Total**	**Less than 2 months**	**2 to 12 months**	**1 to 5 years**	**More than 5 years**
Bank overdrafts	3,310	3,310	3,310	—	—	—
Secured bank loans	505	505	105	400	—	—
Lease liabilities	18,724	21,777	703	3,337	8,844	8,893
Trade payables	11,252	11,252	11,252	—	—	—
	33,791	**36,844**	**15,370**	**3,737**	**8,844**	**8,893**

Reconciliation of liabilities arising from financing activities

			Non-cash changes		
in EUR k	Jan 1, 2023	Cash flows	Additions	Changes in Non cash transactions	Dec 31, 2023
Non-current financial liabilities	**53,176**	**(6,771)**	**8,659**	**(2,785)**	**52,279**
Non-current portion of secured bank loans	40,051	(5,987)	6,423	(607)	39,880
Non-current lease liabilities	13,125	(784)	2,236	(2,178)	12,399
Current financial liabilities	**6,946**	**19,815**	**1,695**	**(396)**	**28,060**
Current portion of secured bank loans	1,261	—	—	(1,261)	—
Convertible loan	—	25,500	1,695	(1,313)	25,882
Bank overdrafts	3,374	(3,374)	—	—	—
Current lease liabilities	2,311	(2,311)	—	2,178	2,178
Total	**60,122**	**13,044**	**10,354**	**(3,181)**	**80,340**

			Non-cash changes		
in EUR k	Jan 1, 2022	Cash flows	Additions	Changes in Non cash transactions	Dec 31, 2022
Non-current financial liabilities	**15,394**	**36,631**	**65**	**1,086**	**53,176**
Non-current portion of secured bank loans	—	38,965	—	1,086	40,051
Non-current lease liabilities	15,394	(2,334)	65	—	13,125
Current financial liabilities	**7,145**	**(1,518)**	**1,319**	**—**	**6,946**
Current portion of secured bank loans	505	(505)	1,261	—	1,261
Bank loans	—	—	—	—	—
Bank overdrafts	3,310	64	—	—	3,374
Current lease liabilities	3,330	(1,077)	58	—	2,311
Total	**22,539**	**35,113**	**1,384**	**1,086**	**60,122**

Currency risk

The Group is exposed to currency risk in cases where contracts are concluded in foreign currencies. The vast majority of goods delivered and services the Company provided, including those for international customers, are invoiced in EUR.

The main functional currencies of group companies are the EUR, USD, SAR, the Indian rupee and the United Arab Emirates Dirham. The following table presents the net foreign currency exposure of the Group as of December 31, 2023, 2022 and 2021.

	Dec 31, 2023			
in EUR k	USD	INR	AED	SAR
Trade receivables	1,283	—	—	—
Trade payables and other liabilities	(3,185)	—	—	—
Net exposure	**(1,902)**	**—**	**—**	**—**

	Dec 31, 2022			
in EUR k	USD	INR	AED	SAR
Trade receivables	3,720	8	—	—
Trade payables and other liabilities	(2,701)	—	—	—
Net exposure	**1,019**	**8**	**—**	**—**

	Dec 31, 2021			
in EUR k	USD	INR	AED	SAR
Trade receivables	2,604	8	—	—
Trade payables and other liabilities	(2,394)	(4)	—	—
Net exposure	**210**	**4**	**—**	**—**

Sensitivity analysis relating to changes in exchange rates

The following tables demonstrate the sensitivity at the end of the reporting period to a reasonably possible change in the USD exchange rates, with all other variables held constant, of the Group's earnings before tax and equity movement. The Group's exposure to foreign currency risk for all other currencies is not material.

	Earnings before tax		Equity	
in EUR k	**5% increase**	**5% decrease**	**5% increase**	**5% decrease**
December 31, 2023	31	(34)	31	(34)
December 31, 2022	(94)	104	(94)	104

Interest rate risk

Interest bearing liabilities with floating interest rates exist for non-current loans as of December 31, 2023.

The following sensitivity analyses has been determined based on the exposure to interest rates at the reporting date. For the floating rate liabilities, the analysis is prepared assuming the amount of liability outstanding at the reporting date was outstanding for the whole period. In accordance with the relevant loan agreement, the interest rate cannot be lower than the determined interest rate and therefore the analysis has only been performed for the scenario where interest rate increases.

If interest rates had been 1.0 percentage points higher and all other variables were held constant, the Group's earning before tax would decrease by EUR 422k for the twelve months ended December 31, 2023 (December 31, 2022: EUR 1,160k).

24 List of subsidiaries

The major subsidiaries of the Group are listed below.

		Equity interests (%)	
Name	**Country in which primary activities are pursued**	**Dec 31, 2023**	**Dec 31, 2022**
Centogene GmbH	Germany	100	100
Centogene FZ-LLC	United Arab Emirates	100	100
Centogene US, LLC	USA	100	100
Centogene GmbH*	Austria	—	100
Centogene India Pvt. Ltd	India	100	100
Centogene Switzerland AG	Switzerland	100	100
Centosafe B.V.	Netherlands	100	100
Centogene d.o.o Belgrade	Serbia	100	100
Genomics Innovations Company Limited**	United Arab Emirates	20	—

(*) The Group acquired the remaining 10% of Centogene GmbH. Austria in 2022. During 2023, the Group decided to wind down the entity.
(**) Joint Venture created in 2023. See note 15.

25 Non-controlling interests

As of December 31, 2023, the Group has no non-controlling interests, since in 2022 the Group acquired the remaining 10% of Centogene GmbH (Austria). In addition, with the decision to cease COVID-19 operations as of March 31, 2022, Centogene terminated its cooperation agreement with Dr. Bauer GmbH and the control over Dr. Bauer GmbH ceased; Centogene no longer meets

the criteria of the control model under IFRS 10 as it no longer has exposure to variable returns and the ability to use power to affect returns through COVID-19 operations (see Note 4).

Dec 31, 2021 in EUR k	Centogene GmbH, Vienna	Dr. Bauer Laboratoriums GmbH
Net assets/(liabilities)	(528)	245
Carrying amount of non- controlling interests	(53)	—
Revenue	—	109,015
Profit/(loss)	(6)	98
Profit/(loss) allocated to non- controlling interests	(1)	98

26 Commitments

Future payments for non-cancellable leases

The Group has a lease contract in relation to the expansion of the Rostock headquarters. The future lease payments and utilities for these non-cancellable lease contracts are EUR 105k within one year, EUR 1,272k within five years and EUR 318k thereafter (2022: EUR nil; 2021: EUR 107k within one year; 2022: EUR 1,272k; 2021: EUR 2,370k within five years; and 2022 EUR 318k; 2021: EUR 4,219k thereafter).

The Group has various non-cancellable lease contracts of office equipment and storage spaces which had a lease term of less than 12 months or were related to leases of low-value assets, and therefore the short-term lease recognition exemption was applied to these contracts. The future lease payments for these non-cancellable lease contracts are EUR 105k within one year (2022: EUR 59k; 2021: EUR 44k) and EUR 4k within five years (2022: EUR 25k; 2021: EUR 49k).

Future payment obligations

During 2023, the Group concluded agreements with suppliers, for goods and services to be provided in 2024 with a total payment obligation of EUR 3,214k (2022: EUR 6,670k; 2021: EUR 6,620k).

27 Related parties

Transaction with shareholders

On January 31, 2022, pursuant to a securities purchase agreement and a warrant agreement, each signed with certain investors, the Group received EUR 15.0 million in exchange for the issuance of an aggregate of 4,479,088 common shares at a price per share of USD 3.73 (EUR 3.35) and warrants initially exercisable for the purchase of up to an aggregate of 1,343,727 additional common shares at an initial exercise price per common share of USD 7.72. The warrants are exercisable immediately as of the date of issuance and will expire on December 31, 2026. Based on the fair value per share at the issuance date, the Group recognized the warrants as liabilities in the amount of USD 3.2 million (EUR 2.8 million). We are not aware of any ordinary shares which were issued by the Company and sold in this transaction to related parties. The fair value of warrants increased from EUR 0.19 per warrant as of December 31, 2022, to EUR 0.29 per warrant as of December 31, 2023. The result is an increase in fair value of warrant liabilities of EUR 159k for the period ended December 31, 2023 (see note 23).

On June 26, 2023, the Company entered into a joint venture agreement (the “Joint Venture Agreement”) with Pharmaceutical Investment Company (“PIC” or “Lifera”) (see Note 1 and 15). During the year 2023, as mentioned in note 8.1, the Company has recognized a gain of EUR 7,549k related to income pertaining to the transfer of technology and the license of the company’s Intellectual Property (“IP”).

Remuneration of management in key positions

Key management have been defined as the members of the management board and the Company's other key executive officers.

in EUR k	2023	2022	2021
Short- term employee benefits	3,640	4,138	4,098
Post- employment pension and medical benefits	—	—	23
Termination benefits	50	679	235
Share- based payment transactions	1,460	(1,929)	822
Total compensation to key management	**5,150**	**2,888**	**5,178**

During 2023, due to the departure of Patrice Denèfle, the former CSO, the share-based payment expenses included a reversal of the costs previously recognized amounted to EUR 117k because of the cancelation of his plans. During 2022, due to the departure of the former CEO Andrin Oswald, the former CFO René Just and former CIO Volkmar Weckesser, the Company included reversals of share-based expenses recognized in previous periods and forfeiture of EUR 3,104k.

There are no pension commitments for members of the management board.

During 2023 1,495,855 RSUs were granted under the 2019 Plan to key management personnel which are recognized as share-based payment expenses in profit and loss (see Note 22). In addition, the Company granted a Capital Raise Bonus to the CEO and CFO. Therefore, the Company recognized expenses in the amount of EUR 1.0 million in profit and loss (see Note 22).

As of December 31, 2023, the Group has receivables of EUR nil (2022: EUR nil) recognized related to the exercise of options by key management personnel.

Remuneration of members of the Supervisory Board

The supervisory board received remuneration for its activities of EUR 224k in the reporting year (2022: EUR 216k; 2021: EUR 688k). In addition, as disclosed in note 22, certain members of the supervisory board received share-based awards under the 2019 Plan. For the year ended December 31, 2023, share-based payment expenses of EUR 741k (2022: EUR 1,446k, 2021: EUR 2,564k) related to these awards were charged to profit and loss.

Transactions with members of management in key positions and other related parties

The Company purchased supplies used for genetic sequencing from an entity related to a member of the supervisory board that joined the board in 2020. Expenses totaling EUR 812k (2022: EUR 699k) were charged to profit and loss related to the period of service of the board member.

The Company deconsolidated Dr. Bauer GmbH from April 2, 2022 (see Note 4 – Basis of consolidation) and assessed Dr. Bauer GmbH under IAS 24 as of the Deconsolidation Date. Accordingly, Dr. Bauer GmbH is a related party through Dr. Peter Bauer who is a key management personnel of Centogene.

Transactions with Dr. Bauer GmbH for the year ended December 31, 2023, was EUR 236k related to the collection of receivables costs related to Covid to CNTG GmbH (2022: EUR 1,815k).

As of December 31, 2023, the Group had receivables balances with Dr. Bauer GmbH of EUR nil (2022: EUR 321k) with a related provision for doubtful accounts of EUR nil (December 31, 2022: EUR 58k). However, the Company had payables balances with Dr. Bauer GmbH of EUR 80k (2022: EUR nil).

As mentioned above, on June 26, 2023, the Company entered into a joint venture agreement (the "Joint Venture Agreement") with Pharmaceutical Investment Company ("PIC" or "Lifera"). As a result from the transfer of technology and the license of the company's Intellectual Property ("IP"), which amounted to a EUR 9,436k, recognizing a gain of EUR 7,549k (Note 8.1 and 15).

28 Contingent liabilities

Contingent Liabilities

In May 2016, the Company was informed in writing by the Universitair Medisch Centrum Utrecht ("UMCU") that a claim had been initiated against UMCU regarding a prenatal diagnostic test that the Company conducted at their request which failed to identify a specific mutation present in a patient.

By order of the court dated October 13, 2021, a Professor was appointed as the expert witness. The court asked the expert witness to prepare its expert report latest by January 5, 2022. With its letter to the court dated October 25, 2021, the expert witness rejected the appointment due to the possibility of bias. Since then, several potential experts were approached by the court but eventually declined to prepare an expert witness report due to the possibility of bias. Eventually an expert witness was assigned to prepare the expert witness report and delivered it to the court July 4, 2022. The report is favorable for Centogene and the ruling was made available on February 2, 2024. It states that the claim is dismissed, and that the claimants shall bear the costs with equal shares. The judgement may be provisionally enforced against security amounting to 110% of the amount to be enforced. The amount in dispute was set at EUR 1.3 million. The claimants do have the chance to appeal the verdict.

29 Subsequent Events

A decision had been made regarding the UMCU case against Centogene. Refer to paragraph 28 Contingent Liabilities further details.

On February 27, 2024, we received a notification from Nasdaq's Listing Department notifying the Company of the determination of Nasdaq to delist the Company's securities from The Nasdaq Global Market due to non-compliance with the MVPHS requirement, subject to our right to a hearing with the Nasdaq Listing Panel. On March 27, 2024, we also received a deficiency notice with respect to the minimum bid price requirement set forth in Rule 5450(a)(1) of the Nasdaq Listing Rules. On April 30, 2024, we had a hearing regarding the delisting notice and presented a plan of compliance with respect to the MVPHS requirement consisting of the achievement of specific milestones related to our strategic alternative review process; specifically, progress with respect to a definitive binding agreement to sell the Company. On May 13, 2024, Nasdaq granted the Company's request for continued listing on Nasdaq until August 26, 2024 (the "extension period"), subject to the Company achieving certain interim progress milestones with respect to its strategic alternative review process and regaining compliance with the MVPHS requirement as a result of the completion of a transaction by August 26, 2024. On August 6, 2024, Centogene N.V. (the "Company") received notice from The Nasdaq Stock Market LLC ("Nasdaq") that the Nasdaq Hearings Panel has determined to delist the Company's common stock because the Company remains noncompliant with Nasdaq Listing Rule 5450(b)(2)(C), which requires a minimum USD 15 million market value of publicly held shares. Suspension of trading in the Company's common stock on Nasdaq will be effective at the open of trading on August 8, 2024. Following the delisting of its common stock from Nasdaq, the Company will continue to be a reporting company under the Securities Exchange Act of 1934. The Company has also applied to trade its common stock on the OTCQB Market and expects to commence trading of its common stock on the OTCQB. On October 9, 2024, the Company began training on OTCQB.

On April 29, 2024, the Company and Evotec SE entered into a second amendment to the collaboration agreement, whereby the Company granted Evotec a non-exclusive license to use Program IP until March 31, 2025, in which Centogene will receive an up-front fee. The Company also granted Evotec an option right until March 31, 2025, to enter into a license agreement acquiring Centogene's share of the IP generated throughout the collaboration. Should Evotec execute on a global license, Centogene would receive an up-front fee, milestone payments, as well as additional royalties.

On May 12, 2024, the Company and PIC entered into a Second Amendment (the "Second Loan Amendment") to the Convertible Loan Agreement, dated October 26, 2023, between the Company and PIC (as amended) to, among other provisions, bifurcate the existing conversion feature of the loan such that (i) an aggregate principal amount of USD 15.0 million plus related conversion fees (the "First Amount"), shall convert on the earlier of April 1, 2025 or the date that is ten (10) days following the receipt by the Company and PIC of approval by the Committee on Foreign Investment in the United States (CFIUS) of the issuance of the Company's common shares upon conversion of the loan ("CFIUS Clearance"); and (ii) the remaining aggregate principal amount of USD 15.0 million plus all accrued and unpaid interest and related conversion fees (the "Second Amount") shall convert on the second anniversary of the First Conversion. The Second Loan Amendment also adjusted the conversion price of the First Amount from $2.20 to $0.79 per common share (the "First Conversion"). The Second Amount shall continue to convert at the existing conversion price of $2.20 per common share (the "Second Conversion"). The Second Loan Amendment provides that in no event shall the number of Company common shares issued pursuant to any loan conversion pursuant to the Convertible Loan Agreement result in PIC holding in excess of 49% of the outstanding common shares of the Company, and the conversion price applicable to the Second Amount shall be increased to the extent required to ensure compliance with the foregoing.

On May 12, 2024, the Company completed an account receivables sale (the "PIC AR Sale") with PIC. The terms of the PIC AR Sale are set forth in the KSA Receivables Transfer Agreement, which became effective as of May 12, 2024 (the "KSA Receivables Transfer Agreement"), and the accompanying Variation Agreement (the "KSA Receivables Variation Agreement," and together with the KSA Receivables Transfer Agreement, the "Receivables Agreement") between the Company, and PIC dated as of May 12, 2024. Pursuant to the Receivables Agreement, PIC agreed to purchase rights to certain of Centogene's accounts receivable in the KSA (each, a "KSA Receivable") for an aggregate purchase price of USD 15.0 million (EUR 13.9 million) (the "AR Purchase Price"). The AR Purchase Price is payable by PIC in three similar tranches of USD 5.0 million (each, a "Tranche Payment"). The Company has received all tranches during 2024. Consequently, the Company released the related reserve accrued before for such account receivables amounted to EUR 2.9 million.

On May 12, 2024, the Company and PIC entered into a share purchase agreement (the "Share Purchase Agreement") pursuant to which the Company agreed to sell to PIC 16,000 shares in the capital of Genomics Innovation Company Limited, (the "JV"), representing 16% of the JV's total outstanding shares, for an aggregate purchase price of SAR 20.0 million (EUR 4.9 million) (the "Share Purchase Consideration"). The Company has received the payment on May 23, 2024. The Company has retained a 4% equity position in the JV. Under the terms of the Share Purchase Agreement, during the 24-month period following the six-month anniversary of the closing date of the share purchase, the Company shall have an option to purchase a number of shares in the JV equal to 16% of the aggregate number of shares outstanding at the time of exercise of such option (the "Call Option Shares").

On May 12, 2024, the Company and the JV entered into a variation agreement (the "Consultancy Variation Agreement") to the Consultancy Agreement (the "Consultancy Agreement") between the Company and the JV, which was entered into on November 27, 2023, in connection with the formation of the JV. Pursuant to the Consultancy Variation Agreement, the first operational milestone fee payable to the Company under the Consultancy Agreement was reduced from SAR 20.0 million to SAR 10.0 million.

Also, on May 12, 2024, the Company and the JV entered into a variation agreement (the "IP License Variation Agreement") to the Technology Transfer and Intellectual Property License Agreement (the "IP License Agreement") between the Company and the JV, which was entered into on November 27, 2023, in connection with the formation of the JV. Pursuant to the IP License Variation Agreement, among other things, certain royalty fees payable to the Company were reduced from 2.5% of the JV's net revenue to 1% of the JV's net revenue.

On May 12, 2024, the Company and Oxford entered into a limited waiver, consent and fourth amendment (the "Fourth Amendment") to the existing Loan and Security Agreement dated January 31, 2022 (as amended from time to time, the "Loan and Security Agreement"). Pursuant to the Fourth Amendment, Oxford (a) consented to permit the Share Purchase Agreement, the Consultancy Variation Agreement, the IP License Variation Agreement, the Second Loan Amendment (together with the previously disclosed amendment to the Convertible Loan Agreement dated April 23, 2024), the KSA Receivables Transfer Agreement (as amended by the KSA Receivables Variation Agreement) and the Registration Rights Amendment and the transactions contemplated by the foregoing and (b) agreed to waive events of default under the Loan and Security Agreement with respect to the Company's delayed 20-F filing and alleged actions taken by the Company in connection with the negotiation on certain of the mentioned transactions.

Additionally, the Fourth Amendment provides that the Loan and Security Agreement shall be amended to (a) extend the period of time in which the Company has to deliver its audited consolidated financial statements for its fiscal year ended December 31, 2023, (b) remove a delisting of the Company's common shares from Nasdaq as an event of default and (c) include additional covenants requiring the Company to (i) engage a financial consultancy firm and chief restructuring/transformation officer, and (ii) achieve certain near-term milestones with respect to the Company's announced pursuit of strategic alternatives.

On May 12, 2024, the Company and Oxford entered into a success fee agreement (the "Success Fee Agreement"). The Success Fee Agreement provides that, upon a trigger event, the Company shall pay Oxford a fee for each term loan advanced by the lenders under the Loan and Security Agreement, which shall be equal to 2% multiplied by the original principal amount of such term loan. The trigger events under the Success Fee Agreement, include, but are not limited to, the Company's market capitalization exceeding USD 125.0 million for ten consecutive trading days or the Company consummating a change of control transaction or series of related transactions. On May 12, 2024, the Company and PIC entered into an amendment (the "Registration Rights Amendment") to the Second Registration Rights Agreement (the "Registration Rights Agreement") dated October 26, 2023. Pursuant to the Registration Rights Amendment, the Company shall not be required to file a registration statement usable for the resale or other transfer of the Company's common shares to be issued upon conversion of the loan pursuant to the Convertible Loan Agreement until the date that is fifteen (15) days following the receipt of CFIUS Clearance (the "Registration Statement Effectiveness Deadline Date"). Additionally, if at the time of receipt of CFIUS Clearance the Company is not required to file reports under Section 13 or Section 15(d) of the Securities Exchange Act of 1934, then the Registration Statement Effectiveness Deadline Date shall be fifteen (15) days following the date on which the Company becomes required to file such reports.

On November 12, 2024, the Company and Charme entered into the Share Purchase Agreement, for the acquisition by Charme (or an affiliate of Charme) of all issued and outstanding shares in the capital of Centogene GmbH and certain intra-group receivables for an aggregate purchase price of (i) EUR 8,717,906.80 in cash to be paid upon Closing and (ii) the assumption by Charme (or an affiliate of Charme) at Closing of the Company's rights, obligations and liabilities under the Convertible Loan Agreement. The Transaction is subject to several conditions such as regulatory, antitrust and shareholder approval as well as conditions that (i) no order, law or injunction is in effect and no filing with suspensory effect has been ordered, which would restrain or prohibit the Transaction in any material respect, (ii) Centogene GmbH is not materially insolvent prior to or at Closing, (iii) Oxford has not taken certain actions prior to or at Closing that would lead to Centogene GmbH being materially insolvent or over-indebted, the Company ceasing to own its shares in Centogene GmbH or Centogene GmbH ceasing to own any of its own assets, (iv) completion of an internal reorganization in order to unwind certain existing intra-group receivables to Charme's satisfaction and (v) the execution and effectiveness of certain agreements with Oxford and Lifera to be entered into in connection with the Transaction. These conditions should be satisfied or waived before March 31, 2025. After such date Charme may, in its sole discretion, either terminate the Share Purchase Agreement by written notice to the Company or the Company and Charme may jointly postpone satisfaction of the Closing conditions to a date not later than June 30, 2025. There is a risk that one or more of these conditions might not be met and the satisfaction of these conditions is largely outside the Company's control. As a result, the Company cannot provide any assurance that the Transaction will be consummated in a timely manner or at all.

On January 8, 2025, the Company received the approval from Saudi Arabia antitrust regulator, representing the completion of a closing condition set in the Share Purchase Agreement described above.

It is a closing condition that the Parties have agreed that the Seller's entire interest in Genomics Innovations Company Ltd. (the "Genomics") will be transferred to Centogene GmbH prior to, at, or as soon as permitted under applicable Law after Closing in a separate agreement and Pharmaceutical Investment Company shall irrevocably consent to such transfer and otherwise irrevocably undertake to cooperate with such transfer to the fullest extent permitted by applicable Law pursuant to the Lifera JV Novation Agreement.

In addition, it is a Closing condition under the Share Purchase Agreement that the Company, Lifera and Charme shall have entered into an agreement pursuant to which (among other things), effective upon the Closing, Charme or any of its subsidiaries will assume all of the Company's rights, obligations and liabilities under the Convertible Loan Agreement and the Company will be released from all of its rights, obligations and liabilities under the Convertible Loan Agreement (including any obligation to repay any outstanding amounts thereunder or to issue any equity securities of the Company thereunder).

On November 12, 2024, Centogene GmbH and the JV entered into a "Short-Term Loan Facility Agreement", pursuant to which the JV will lend Centogene GmbH up to EUR 15,000,000 for the purpose of funding Centogene GmbH's required cash flow until the earlier of the Closing or March 31, 2025 (which can be extended till June 30, 2025).

If the transaction is completed, Parties agreed the Loan and any Interest accrued until the date of the Transaction Completion shall be recharacterized into an advance payment made by the Lender to the Borrower of the Milestone Fees (as applicable) under the Consultancy Agreement, any amount of the Loan not already advanced at the date of the Transaction Completion shall be advanced in accordance with the terms of the Consultancy Agreement; the relevant provisions of Variation Agreement No. 2 to Consultancy Agreement shall immediately enter into effect and replace the terms of this Agreement in its entirety; and this Agreement shall automatically terminate and become null and void. If the Transaction is not completed in accordance with the Transaction Documents by March 31, 2025, the balance (if any) of the Loan together with all accrued and capitalized Interest and other monies outstanding in connection with the Facility shall be become due and payable and shall be repaid immediately by the Borrower to the Lender.

On November 12, 2024, the Company and Oxford entered into a Forbearance Agreement and Fifth Amendment to Loan and Security Agreement (the "Forbearance Agreement and Fifth Amendment"), which, among other things, provides (i) consent by Oxford to the execution by the Company of the Share Purchase Agreement and the consummation of the transactions described therein, (ii) forbearance by Oxford from exercising remedies as a secured lender with respect to any existing defaults under the existing loan and security agreement, dated as of January 31, 2022, between the Company and Oxford (as amended to date, the "Loan and Security Agreement") and (iii) for certain interest payments of the Company to be paid-in-kind prior to the Closing. It is a Closing condition under the Share Purchase Agreement that BidCo and Oxford shall have entered into an amendment and restatement of the Loan and Security Agreement pursuant to which (among other things), effective upon the Closing, (i) BidCo will become party to the Loan and Security Agreement, in its capacity as the parent entity of Centogene GmbH effective as of the Closing, and (ii) the Company will be replaced by Centogene GmbH as the facility borrower under the Loan and Security Agreement, such that the Company shall have no further rights, obligations or liabilities thereunder, with all security interests in the Company's assets held by Oxford pursuant to the Loan and Security Agreement and related agreements being fully released.

Following the Closing, the Company and its remaining subsidiaries (Centogene Switzerland AG and CentoSafe B.V.) will no longer have any operations and, in connection therewith, the Company intends to (i) liquidate such remaining subsidiaries and (ii) propose to the Company's general meeting that the Company enter into dissolution and liquidation with effect from the moment immediately following the Closing in accordance with the laws of the Netherlands and the Company's organizational documents.

These consolidated financial statements were approved by management on January 29, 2025. the consolidated statements are subject to adoption by the General Meeting of Shareholders.

Company Financial Statements

Company only balance sheet as at December 31, 2023

(After appropriation of result)

(in EUR k)

Assets	Note	Dec 31, 2023	Dec 31, 2022
Non-current assets			
Financial assets	A	3,195	146
Derivative Assets		799	510
		3,994	**656**
Current assets			
Receivables from subsidiary	B	25,684	27,516
Other receivables and prepaid expenses	C	1,407	3,574
Cash	D	13,226	20,641
		40,317	**51,731**
Total assets		**44,311**	**52,387**
Equity and liabilities			
Equity	E		
Issued capital		3,478	3,307
Capital reserve		126,816	123,800
Legal reserve		3,464	6,972
Translation reserve		148	435
Retained earnings and other reserves		(159,188)	(127,101)
		(25,282)	**7,412**
Non - Current liabilities			
Non-current loans	F	39,880	40,051
Derivative Liabilities		636	636
Other non-current liabilities		381	-
		40,897	**40,687**
Current liabilities	G		
Convertible loan		25,882	-
Other Current loans		-	1,261
Other liabilities		2,814	3,027
		28,696	**4,288**
Total equity and liabilities		**44,311**	**52,387**

Company only profit and loss account for the year ended December 31, 2023

(in EUR k)

		For the Years Ended, December 31	
	Note	**2023**	**2022**
Loss for the period		(36,068)	(32,063)
Share of result of participating interests after tax	A	265	146
Net loss		**(35,803)**	**(31,917)**

General company information

These Company only financial statements and the consolidated financial statements together constitute the statutory financial statements of Centogene N.V. (hereafter: 'the Company'). The financial information of the Company is included in the Company's consolidated financial statements.

The Company was founded as Centogene B.V. on October 11, 2018 as private company for the purpose of a corporate reorganization of Centogene AG, Germany and converted its legal form under Dutch law to a public company with limited liability for an initial public offering of its common shares. Prior to the consummation of the corporate reorganization on November 7, 2019 Centogene N.V. or Centogene B.V. had not conducted any operations and had not held any assets or liabilities, including contingent liabilities, prior to the reorganization.

At the initial step of the corporate reorganization, the shareholders of Centogene AG subscribed for 19,861,340 common shares in Centogene B.V and agreed to transfer their common shares and their preferred shares in Centogene AG to Centogene B.V. in consideration therefore. As a result, Cento-gene AG became a wholly owned subsidiary of Centogene B.V. The legal form of Centogene B.V. was converted from a private company with limited liability to a public Company with limited liability, which resulted in a name change into Centogene N.V.

Financial reporting period

The Company financial statements cover the calendar year of 2023 with comparative figures of 2022.

Basis of preparation

These Company only financial statements have been prepared in accordance with Title 9, Book 2 of the Netherlands Civil Code. For setting the principles for the recognition and measurement of assets and liabilities and determination of results for its separate financial statements, the Company makes use of the option provided in section 2:362(8) of the Netherlands Civil Code. This means that the principles for the recognition and measurement of assets and liabilities and determination of the result (hereinafter referred to as principles for recognition and measurement) of the separate financial statements of the Company are the same as those applied for the consolidated EU-IFRS financial statements. These principles also include the classification and presentation of financial instruments, being equity instruments or financial liabilities. In case no other principles are mentioned, refer to the accounting principles as described in the consolidated financial statements. For an appropriate interpretation of these statutory financial statements, the separate financial statements should be read in conjunction with the consolidated financial statements.

Information on the use of financial instruments and on related risks for the group is provided in the notes to the consolidated financial statements of the group.

All amounts in the company financial statements are presented in EUR thousand, unless stated otherwise. Financial information presented has been rounded to the nearest thousand. Accordingly, numerical figures shown as totals in some tables may not be an arithmetic aggregation of the figures that precede them or may deviate from other tables by one thousand euros at a maximum.

Since Centogene N.V's income statement for 2023 is recognized in the consolidated financial statements, it is sufficient (in the company's financial statement) to present a condensed income statement in accordance with Section 402 of Book 2 of the Dutch Civil Code.

The company is registered in the Commercial Register of the Chamber of Commerce under the file number: 72822872.

Participating interests in group companies

Group companies are all entities in which the Company has directly or indirectly control. The Company controls an entity when it is exposed, or has rights, to variable returns from its involvement with the group companies and has the ability to affect those returns through its power over the group companies. Group companies are recognised from the date on which control is obtained by the Company and derecognised from the date that control by the Company over the group company ceases. Participating interests in group companies are accounted for in the separate financial statements according to the equity method, with the principles for the recognition and measurement of assets and liabilities and determination of results as set out in the notes to the consolidated financial statements.

If the value of the participating interests under the equity method has become nil, this method is no longer applied , with the participating interests being valued at nil as long as the net asset value remains negative. In connection with this, any long-term interests that, in substance, form part of the investor's net investment in the subsidiaries, are included.
A provision is recognized if and to the extent the company is liable for all or part of the debts of the participating interest or if it has a constructive obligation to enable the participating interest to repay its debts. The provision is carried at the present value.

A subsequent obtained share of the profit of the participating interests is recognized only if and to the extent that the accumulated share of the previously unrecognized loss has been compensated.

Share of result of participating interests

The share in the result of participating interests consists of the share of the Company in the result of participating interests. Results on transactions involving the transfer of assets and liabilities between the Company and its participating interests are eliminated to the extent that they can be considered as not realised.
The Company makes use of the option to eliminate intragroup expected credit losses against the book value of loans and receivables from the Company to participating interest, instead of elimination against the equity value of the participating interests.

A Financial assets

On June 26, 2023, the Company entered into a joint venture agreement (the "Joint Venture Agreement") with Pharmaceutical Investment Company ("PIC" or "Lifera"), a closed joint stock company incorporated pursuant to the laws of Saudi Arabia and a wholly-owned subsidiary of the Public Investment Fund (PIF) based in Riyadh, to form a joint venture under the laws of Saudi Arabia. According to the joint venture agreement, the founding capital is to be provided 80% (SAR 80,000,000; EUR 19,892k) by PIC and 20% (SAR 20,000,000; EUR 4,973k) by the Company and will be used to finance business operations, including the establishment of a laboratory competence center in the Kingdom of Saudi Arabia ("KSA"). Pursuant to the Joint Venture Agreement, and subject to the terms and conditions contained therein, the Company and PIC have established a limited liability company in Saudi Arabia, Genomics Innovations Company Limited, (the "JV") on November 19, 2023. The joint venture will be involved in providing state-of-the-art multiomic testing services to patients, health systems, biopharma clients, and research institutions in Saudi Arabia and countries of the Gulf Cooperation Council (GCC).

The Company's interest in the JV is accounted for using the equity method in the consolidated financial statements. Management obtained financial information from the JV as a reporting package based in local GAAP and analyzed the necessary adjustment to convert the information into IFRS based financial statements. See Note 15 to the Consolidated Financial Statements for further detail. Financial assets also include the 100% investment of the Company in its fully owned subsidiary Centogene GmbH, and Centogene Switzerland AG.

A summary of the movement in the value of the investments is given below:

	2023	
in EUR k	**Group Companies**	**Joint Ventures**
Net asset value as at January 1	**146**	**—**
Acquisition of non-wholly owned subsidiary	—	4,973
Transfers IP of non-wholly owned subsidiary	—	(1,887)
Share in result wholly owned subsidiaries	265	—
Share in result non-wholly owned subsidiaries	—	(302)
Net asset value as at December 31	**411**	**2,784**

	2022	
in EUR k	**Group Companies**	**Joint Ventures**
Net asset value as at January 1	—	—
Acquisition of non-wholly owned subsidiary	—	—
Share in result wholly owned subsidiaries	146	—
Net asset value as at December 31	**146**	—

During 2023, pursuant to the Joint Venture establishment mentioned above, the Company and PIC have agreed to a Technology Transfer and Intellectual Property License Agreement, a Consultancy Agreement and a Laboratory Services Agreement. As a result, from the transfer of technology and the license of the company's Intellectual Property ("IP"), which amounted to a gain of EUR 9,436k, the Company recognized the 20% as a deduction of its investment in the joint venture amounted to EUR 1,887k.

B Receivables from subsidiary

The receivables from subsidiary amounting to EUR 25,684k (December 31, 2022: EUR 27,516k) relates to a short-term loan provided to its subsidiary Centogene GmbH that may be terminated any time with a notice of one month. The receivable bears an interest rate of 1.5% per annum.

C Other receivables and prepaid expenses

Other receivables and prepaid expenses include:

in EUR k	**31-Dec-23**	**31-Dec-22**
Prepayments	1,407	3,574
Total	**1,407**	**3,574**

Prepayments relate mainly to a D&O insurance for the management board.

D Cash

As of December 31, 2023 the company has cash in bank of EUR 13,226k (December 31, 2022: EUR 20,641k).

E Shareholders' equity

The movement in shareholder's equity is as follows:

in EUR k	Issued capital	Capital reserve	Currency translation reserve	Legal reserve	Other reserve	Unappro-priated result	Total
As of January 1, 2022	**2,708**	**112,235**	**511**	**7,941**	**(8,721)**	**(87,473)**	**27,201**
Loss for the year	—	—	—	—	—	(31,841)	**(31,841)**
Other comprehensive loss	—	40	(76)	—	—	(36)	(72)
Total comprehensive loss	**—**	**40**	**(76)**	**—**	**—**	**(31,877)**	**(31,913)**
Issuance of shares	594	14,378	—	—	—	—	**14,972**
Movement for capitalised development costs	—	—	—	(969)	969	—	**—**
Share-based payments	—	(16)	—	—	—	—	**(16)**
Exercise of options	5	(5)	—	—	—	—	**—**
Warrant liability	—	(2,832)	—	—	—	—	**(2,832)**
As of December 31, 2022	**3,307**	**123,800**	**435**	**6,972**	**(7,752)**	**(119,350)**	**7,412**

in EUR k	Issued capital	Capital reserve	Currency translation reserve	Legal reserve	Other reserve	Unappro-priated result	Total
As of January 1, 2023	3,307	123,800	435	6,972	(7,752)	(119,350)	7,412
Loss for the year	—	—	—	—	—	(35,516)	**(35,516)**
Other comprehensive loss	—		(287)	—	—	(3)	(290)
Total comprehensive loss	**—**	**—**	**(287)**	**—**	**—**	**(35,519)**	**(35,806)**
Issuance of shares	—	—	—	—	—	—	**—**
Movement for capitalised development costs	—	—	—	(3,508)	3,508	—	**—**
Share-based payments	—	3,131	—	—	—	—	**3,131**
Exercise of options	171	(171)	—	—	—	—	**—**
Warrant liability	—	—	—	—	—	—	**—**
Other movements	—	56	—	—	(75)	—	**(19)**
As of December 31, 2023	**3,478**	**126,816**	**148**	**3,464**	**(4,319)**	**(154,869)**	**(25,282)**

Issued capital and capital reserve

Common Shares

As of December 31, 2018, 15,861,340 common shares of Centogene N.V. with a nominal value of EUR 0.12 (converted from 230,445 common shares of Centogene AG with a conversion ratio of 33.2238 and 91,562 preferred shares with a conversion ratio of 89.6125, both with a nominal value of EUR 1.00), were issued and fully paid up.

The preferred shares were issued to certain investors to fund the Company's development activities. The preferred shares each had one voting right per share and did not contain a redemption feature or a contractual right to fixed dividends. The preferred shareholders were entitled to a disproportionate share of the net assets of the Company in case of certain exit events, including IPO, which was reflected by the different conversion ratios (share split) for common and preferred shares of Centogene AG to Centogene B.V. As a result of the IPO, all issued and paid-in preferred shares were converted to common shares, based on the conversion ratio above which reflected the return to investors as agreed in the relevant investment agreements.

On November 7, 2019, the Company offered and sold a total of 4,000,000 of our common shares, €0.12 nominal value per share, at a public offering price of USD 14.00 (EUR 12.58) per share, raising aggregate net offering proceeds of €42 million, after deduction of underwriting discounts and commissions as well as transaction costs.

In July 2020, the Company completed a follow-on public offering of 3,500,000 common shares of the Company, consisting of 2,000,000 common shares offered by the Company and 1,500,000 common shares offered by selling shareholders at a price to the public of USD 14.00 per common share (i.e. EUR 12.71 per share). Aggregate offering proceeds, net of underwriting discounts, commissions and transaction costs, were EUR 22 million to the Company.

On January 31, 2022, pursuant to a securities purchase agreement signed with certain investors, the company received EUR 15.0 million as consideration for the issuance of an aggregate of 4,479,088 common shares at a price per share of USD 3.73 (EUR 3.35).

As of December 31, 2023, 29,000,137 common shares of Centogene N.V. with a nominal value of EUR 0.12 were issued and fully paid up (2022: 27,595,835). As of December 31, 2023, the authorized, but unissued common share capital amounted to EUR 6,000k (2022: EUR 6,713k).

in thousands of shares	Dec 31, 2023	Dec 31, 2022
Common shares as of Jan 1, fully paid	27,596	22,568
Issued shares	—	4,998
Exercise of options	1,404	30
Common shares issued as of Dec 31, fully paid	**29,000**	**27,596**

in thousands of shares	Dec 31, 2023	Dec 31, 2022
Authorized common shares of EUR 0.12 each	79,000	79,000

The holders of common shares are entitled to the Company's approved dividends and other distributions as may be declared from time to time by the Company, and is entitled to vote per share on all matters to be voted at the Company's annual general meetings.

Capital reserve

As of December 31, 2023, capital reserve included a share premium of EUR nil (December 31, 2022: EUR 80,883k), being amounts contributed by shareholders at the issuance of shares in excess of the par value of the shares issued, net of any transaction costs incurred for the share issuance.

The capital reserve consists of the share premium account and amounts recorded in respect of share-based payments.

Legal reserve

The Company has adopted development costs and capitalized them as intangible assets as part of its development program. The intangible assets are recorded in the consolidated balance sheet. According to Section 365 (2) Book 2 of the Dutch Civil Code a legal reserve was formed to the extent the development costs are capitalized.

Unappropriated result

Proposal for result appropriation

The General Meeting will be proposed to carry forward the loss after tax for 2023 and deduct EUR 35,803 thousand from the other reserves.

The result after tax for 2023 is included in the item unappropriated result within equity.

F Non current loans

in EUR k	31-Dec-23	31-Dec-22
Non-current loans	39,880	40,051
Derivative Liabilities	636	636
Total	**40,516**	**40,687**

Non-Current Loans

On January 31, 2022 the Company, Centogene GmbH, CentoSafe B.V. and Centogene US, LLC (together, the "Borrowers"), entered into a debt financing agreement in the total amount of up to USD 45.0 million (EUR 40.2 million). Under the terms of the Loan Facility, the Company drew down USD 25.0 million (EUR 22.3 million) on January 31, 2022 and a second tranche of USD 20.0 million (EUR 18.6 million) upon achievement prior to July 31, 2023, of product revenue from our diagnostics and pharmaceutical segments of at least USD 50.0 million (EUR 44.3 million) calculated on a trailing twelve month basis as of the last day of any fiscal month. The Loan Facility also includes covenants such that the Group is required to maintain product revenue, calculated as of the last day of each fiscal quarter and on a trailing twelve-month basis as of such date, of at least EUR 30.0 million for any fiscal quarter prior to obtaining the second tranche and EUR 40.0 million for any fiscal quarter on or after obtaining the second tranche. Both tranches mature on January 29, 2027, with amortized repayments commencing March 1, 2025. The loans extended under the Loan Facility bear monthly interest payments at an interest rate of 7.93% per annum plus the 1-month CME Term SOFR reference rate as published by the CME Group Benchmark Administration Limited (the first tranche, "Tranche A", subject to a floor of 0.07% and the second tranche, "Tranche B", subject to a floor of 4.13%). As security for the Borrowers' obligations under the Loan Facility, the Borrowers granted the lenders thereunder a first priority security interest on all of each Borrower's assets.

The Loan and Security Agreement with Oxford Finance was amended on April 30, 2023 which introduced new requirements that the Group will prepay any outstanding loans under the Loan and Security Agreement in an amount of USD 5.0 million (plus fees, interest and expenses, in each case, pursuant to the terms of the Loan and Security Agreement) upon the first new business development or financing transaction the Group will enter and maintain at least EUR 9.1 million in unrestricted cash on deposit in collateral accounts subject to the Lender's perfected security interest granted under the Loan and Security Agreement. On October 26, 2023 a new amendment was signed. This third amendment modified the existing requirements whereby (i) a reduction in interest rate has been introduced, and (ii) maturity date has been extended. Additionally, the USD 5 million prepayment requirement has been removed and as well as the requirement to hold EUR 9.1 million in unrestricted cash on deposit.

The Company determined the impact of the new amendment changes and applied the guidance set out in IFRS 9 'Financial Instruments' and determined that there was a contract modification. The resulting analysis revealed that that there is no change in the principal amount, that there was a change in interest rate (from 7.93% down to 6.15% and the floor rate increased to 8.15% from 8.00%). Furthermore, there was a change in the payment terms extending the maturity date (by one year to January 29, 2028). Management analyzed this modification taking both qualitatively and quantitatively determining that this was not a substantial modification for the purposes of IFRS 9. The difference between the present value of the new liability and the carrying amount of the original liability is recognized as a gain of EUR 491k, adjusting the liability (as a catch-up adjustments). Transaction costs incurred in the modification are deducted from the liability and expensed during the new life of the agreement, amounting to EUR 645k. The effective interest rate used for the modified amortized cost calculation of Tranche A is 11.38% and for the Tranche B is 17.14%.

In 2022, the Loan Facility was initially recognized at fair value minus transaction costs and subsequently carried at amortized cost measured using the effective interest rate method. The transaction costs deducted from the fair value of the Loan Facility at initial recognition were EUR 1,403k. The effective interest rate used initially for amortized cost calculation of Tranche A is 11.36% and for the Tranche B is 17.11%.

Derivative Liabilities

The Derivative Liabilities consist of a Warrant Liability valued at €394 thousand (2022: €260 thousand) and an Interest rate floor derivative liability valued at €242 thousand (2022: €376 thousand). The carrying amount of these financial liabilities approximated their fair value.

Refer to note 23.1 in the Consolidated Financial Statements for additional information.

G Current liabilities

in EUR k	31-Dec-23	31-Dec-22
Current loans	25,882	1,261
Other liabilities	2,814	3,027
Total	**28,696**	**4,288**

On October 26, 2023, the Company (the ""Borrower"") and Pharmaceutical Investment Company, LLC (“PIC” or the "Lender"), entered into a debt financing agreement in the total amount of up to USD 30.0 million (EUR 28.3 million). Under the terms of the Convertible Loan Facility, the Company drew down USD 30.0 million (EUR 28.3 million) on October 26, 2023, in one tranche only, and the maturity date is April 26, 2024. The interest is accrued daily on the Principal Amount of the Loan at a rate per annum equal to 12.8%.

The Lender may, at its option, convert the Loan into Conversion Consideration. The Lender may convert the Loan in its entirety at any time after the date upon which the 30-day volume-weighted average price of the Common Shares has been at least the Conversion Price per Common Share for at least 20 Trading Days (whether or not consecutive) during a period of 30 consecutive Trading Days.

The type and amount of consideration (the “Conversion Consideration”) due in respect of the Principal Amount of the Loan to be converted will be a number of Common Shares equal to the quotient obtained by dividing (1) the Principal Amount of the Loan plus accrued and unpaid interest by (2) the Conversion Price of USD 2.2 then in effect on the Conversion Date (the first Business Day on which the requirements set forth in the Agreement to convert the Loan are satisfied) or Fundamental Change Conversion Date for such conversion (the date fixed for the conversion of the Loan pursuant to the occurrence of a Fundamental Change).

Fundamental Change is considered when the following occurred: the acquisition by any party (or parties acting in concert) of Common Shares representing more than fifty percent (50%) of the voting power of all of the Borrower’s Common Shares; the consummation of (i) any sale, lease or other transfer, in one transaction or a series of transactions, of all or substantially all of the assets of the Borrower and its Subsidiaries, taken as a whole, to any Person; or (ii) any transaction or series of related transactions (whether by means of merger, demerger, consolidation, share exchange, business combination, reclassification, recapitalization, acquisition, liquidation or otherwise), the result of which is the Borrower’s shareholders prior to such transaction or series of transactions cease to own more than fifty percent (50%) of all classes of common equity of the Borrower or its successor following any such transaction or series of transactions; or the Borrower’s shareholders approve any plan or proposal for the liquidation or dissolution of the Borrower), plus the Conversion Fee Shares (result of dividing USD 1,000,000 by the Conversion Price then in effect).

The initial number of Conversion Shares to be delivered upon conversion of the Loan is 15,000,000 (representing (i) a number of Common Shares of the Company equal to the quotient obtained by dividing (x) the Principal Amount of the Loan plus accrued and unpaid interest (which, in no event shall be less than USD 2,000,000) by (y) the Conversion Price plus (ii) the Conversion Fee Shares) provided.

Management assessed the accounting treatment of the Convertible Loan and analyzed the possibility of conversion at maturity date, determining the Loan should be accounted as a financial liability using the effective interest rate method as there are some circumstances in which the Company should repay the Loan in case of no conversion at maturity date. Management also considered the embedded rights that could only occur upon certain conditions being met, concluding that these were not bifurcated and had a value of zero. As of December 31, 2023, the Company has recognized the loan at amortized cost measured using the effective interest rate method. The transaction costs deducted at initial recognition were EUR 3,023k. The effective interest rate used for

amortized cost calculation is 43.37%. In addition, as of May 12, 2024, the Company and "PIC" signed a new amendment to the Convertible Loan agreement in which the maturity date has been changed (See Note 29 to the consolidated financial statements for further details).

Current loans in 2022 reflected the short-term portion of the Oxford loan (see note F).

Other liabilities include EUR 1,095k provision for audit fees, and EUR 773 for Staff costs. (December 31, 2022: EUR 969k, and EUR 1,057k respectively).

H Financial instruments

The Company's principal financial assets comprise short-term deposits at commercial banks. The main purpose of these financial instruments is to provide funds for the subsidiary's development activities. The Company's other financial instruments relate to other receivables and liabilities.

The risks associated with the Company financial instruments are similar to the ones disclosed in notes to the consolidated financial statements.

I Remuneration of the Board of Directors

The emolument as referred to in Section 2:383(1) of the Netherlands Civil Code, charged in the financial period to the company can be detailed as follows.

Directors Compensation 2023

Supervisory Directors

	P. Schatz	A. Busch	F. Ornskov	H. Birner	J. Sheldon	H. Friedrich	G. Prehn	E. Souêtre	B. Modig	M. Sheahan
					(in € thousands)					
Periodically paid compensation	35	30	20	22	20	20	20	20	19	18
Total cash compensation	**35**	**30**	**20**	**22**	**20**	**20**	**20**	**20**	**19**	**18**
2019 Equity Incentive Plan [(1)(2)]	682	-	-	-	77	-	-	-	77	221
Total share- based payment compensation	**682**	**-**	**-**	**-**	**77**	**-**	**-**	**-**	**77**	**221**

(1) This amount represents the portion of the grant date fair value of the option and RSU (as defined herein) awards recognized as an expense in 2023 under the provisions of IFRS 2.

(2) Mr. Modig, Mr. Ornskov, Mr. Friedrich and Mr. Busch resigned their positions during 2023. The Company recognized a reversal amounted to EUR 626k.

For further details and other information with regard to related-party transactions as well as the members of key management compensation, reference is made to note 27 of the consolidated financial statements.

Managing Directors

	K. Stratton	M. Coego	P. Bauer[1]
		(in € thousands)	
Periodically paid compensation	684	516	241
Bonuses	1,010	315	112
Termination benefits	—	—	—
Total cash compensation	**1,694**	**831**	**353**
2019 Equity Incentive Plan[2]	1,149	301	23
Total share- based payment compensation	**1,149**	**301**	**23**

(1) On January 24, 2023, Prof. Peter Bauer, M.D. was appointed as temporary managing director (Chief Medical and Genomic Officer and member of the management board of Centogene N.V.), until his proposed formal appointment at the Company's next general meeting of shareholders.

(2) This amount represents grant date fair value of the RSUs and option awards granted in 2022 under the 2019 Plan (as defined and discussed below), recognized in 2022 under the provisions of IFRS 2.

For further details and other information with regard to related-party transactions as well as the members of key management compensation, reference is made to note 27 of the consolidated financial statements.

There are no post employment benefits.
There were three employees, employed by the Company and these comprised the active managing directors described in the table above.

J Audit fees

With reference to Section 2:382a(1) and (2) of the Netherlands Civil Code, the following fees for the financial year have been charged by Ernst&Young Accountants LLP, (as the group auditor) and Ernst & Young Wirtschaftsprüfungsgesellschaft to the Company, its subsidiaries and other consolidated entities.

Ernst & Young– Netherlands, and Ernst & Young Germany, have served as our independent registered public accounting firms for the year ended December 31, 2023, for which audited financial statements appear in this Annual Report.

	For the year ended December 31, 2023	
in EUR k	**EY - Netherlands**	**EY Germany**
Audit and audit-related fees	387	1,587
Tax fees	—	—
All other fees	—	—
Total	**387**	**1,587**

Audit and audit-related fees relate to (i) audit services provided by Ernst & Young – NL, and Ernst & Young - Germany, (ii) certain procedures on our quarterly results, and (iii) services related to our statutory and regulatory filings for certain of our subsidiaries, including Centogene AG.
The fees stated above for the audit of the financial statements are based on the fees for the audit of the 2022 financial statements that were provided during 2023.

K Subsequent Events

Please refer to Note 29 to the Consolidated Financial Statements for further details over the subsequent events related to the Company.

Signature page to the Dutch statutory board report of Centogene N.V. for the fiscal year ended December 31, 2023[1]

DocuSigned by:
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Name: P. Bauer
Title: Managing director

DocuSigned by:
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Name: E. Souêtre
Title: Supervisory director

DocuSigned by:
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Name: G. Prehn
Title: Supervisory director

DocuSigned by:
BEA57BB54AF142C...

Name: H. Birner
Title: Supervisory director

[1] Mrs. Stratton has not signed these annual accounts due to the termination of her position as CEO as of 31 December 2024.

OTHER INFORMATION

Auditor's report

The independent auditor's report is set forth on the next page.

Provisions in the Articles of Association governing the appropriation of profit

Under article 34 of the Company's Articles of Association, the profits of a financial year shall be appropriated as follows, and in the following order of priority:

- The Management Board shall determine which part of the profits shall be added to the Company's reserves; and
- Subject to Article 30, the remaining profits shall be at the disposal of the General Meeting for distribution on the shares.

Branch

The Company has a branch named Centogene N.V. Germany, with an office in Rostock, Germany.